WO0141018

Publication Title:

SYSTEM AND METHOD FOR EVALUATING AND PURCHASING DIGITAL CONTENT

Abstract:

Abstract of WO0141018

A system and method are provided for evaluating and purchasing digital books and other content. A user of a document server system may evaluate and purchase digital books and other content, generally referred to as electronic documents. The user may access the document server system from a client system. The document server system and client system may be in electronic communications over a network such as the Internet. The user may perform keyword searches to locate documents that include keywords of interest to the user. The user may select an electronic document for evaluation or purchase from a plurality of electronic documents accessible from the document ser 13a9 ver system. The user may select a portion of the document or the entire document for evaluation. A Garbling Program on the document server system may garble part or all of the contents of the electronic document prior to sending the electronic document to the user for evaluation. Garbling may include scrambling, masking, or removing portions of the content. Scrambling may include randomly replacing characters in textual content. Masking may include covering the content with a shaded area of essentially the same shape and size of the content. Portions of the document proximate keywords located in the document may be left ungarbled. Portions of the document that include certain pre-defined descriptive words may also be left ungarbled. The electronic document may include markup tags around content items. The garbling program may examine the markup tags enclosing one or more content items to determine whether the content items are to be garbled or not garbled. The user may choose to purchase one or more electronic documents. The user may be granted full access privileges to purchased documents, allowing the user to view the documents without garbling. Purchased electronic documents may be delivered to the user in electronic or hardcopy form.

Data supplied from the esp@cenet database - Worldwide

Courtesy of http://v3.espacenet.com

This Patent PDF Generated by Patent Fetcher(TM), a service of Stroke of Color, Inc.

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
7 June 2001 (07.06.2001)

PCT

(10) International Publication Number
WO 01/41018 A2

(51) International Patent Classification[7]: G06F 17/60

(21) International Application Number: PCT/US00/32699

(22) International Filing Date: 1 December 2000 (01.12.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/454,455 3 December 1999 (03.12.1999) US

(71) Applicant: **IBOOKS.COM** [US/US]; 840-C Rio Grande Street, Austin, TX 78701 (US).

(72) Inventor: **THOMPSON, Randy**; 5512 Oakwood Cove, #172, Austin, TX 78731 (US).

(74) Agent: **HOOD, Jeffrey, C.**; Conley, Rose & Tayon, P.C., P.O. Box 398, Austin, TX 78767-0398 (US).

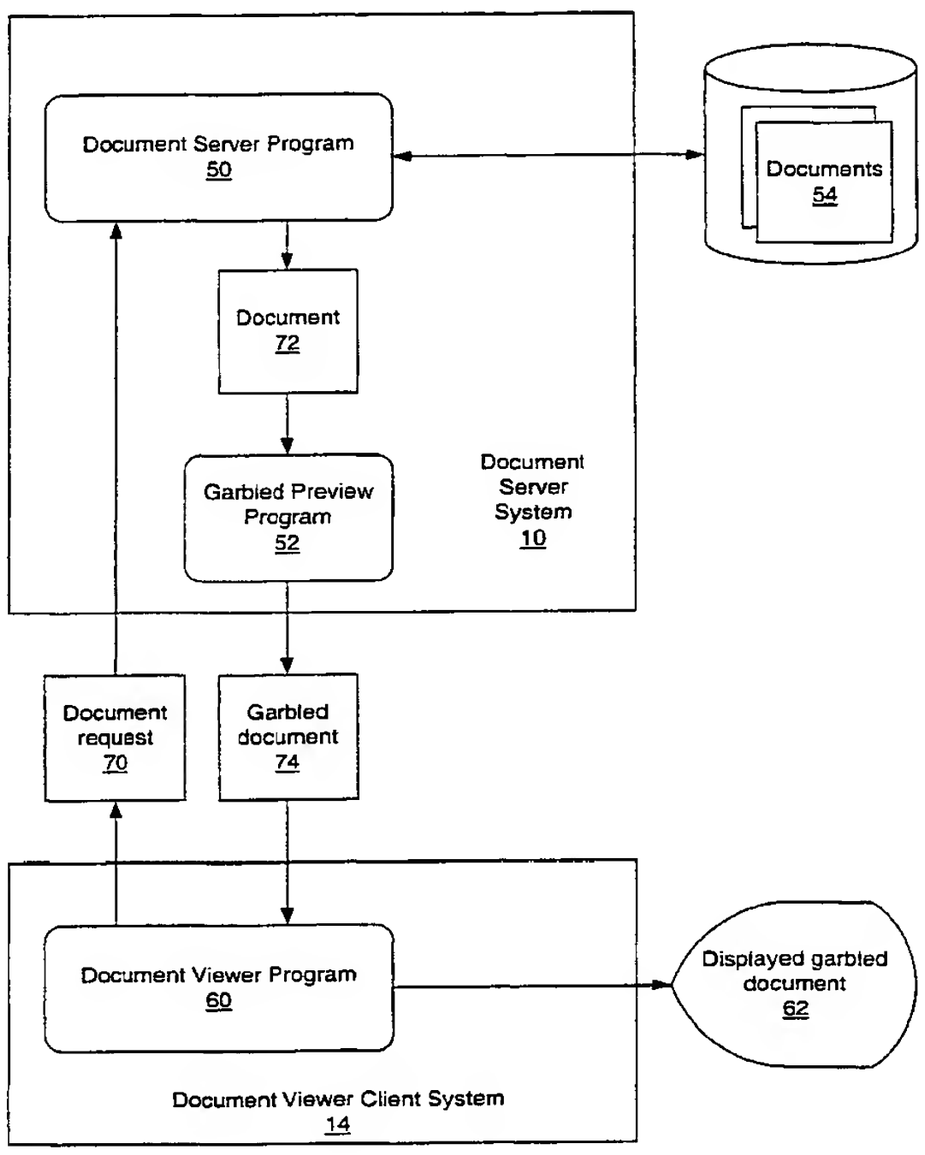
(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:
— *Without international search report and to be republished upon receipt of that report.*

[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR EVALUATING AND PURCHASING DIGITAL CONTENT



(57) Abstract: A system and method are provided for evaluating and purchasing digital books and other content. A user of a document server system may evaluate and purchase digital books and other content, generally referred to as electronic documents. The user may access the document server system from a client system. The document server system and client system may be in electronic communications over a network such as the Internet. The user may perform

[Continued on next page]

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

WO 01/41018 A2

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

keyword searches to locate documents that include keywords of interest to the user. The user may select an electronic document for evaluation or purchase from a plurality of electronic documents accessible from the document server system. The user may select a portion of the document or the entire document for evaluation. A Garbling Program on the document server system may garble part or all of the contents of the electronic document prior to sending the electronic document to the user for evaluation. Garbling may include scrambling, masking, or removing portions of the content. Scrambling may include randomly replacing characters in textual content. Masking may include covering the content with a shaded area of essentially the same shape and size of the content. Portions of the document proximate keywords located in the document may be left ungarbled. Portions of the document that include certain pre-defined descriptive words may also be left ungarbled. The electronic document may include markup tags around content items. The garbling program may examine the markup tags enclosing one or more content items to determine whether the content items are to be garbled or not garbled. The user may choose to purchase one or more electronic documents. The user may be granted full access privileges to purchased documents, allowing the user to view the documents without garbling. Purchased electronic documents may be delivered to the user in electronic or hardcopy form.

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

TITLE: "SYSTEM AND METHOD FOR EVALUATING AND PURCHASING DIGITAL CONTENT"

Background of the Invention

Field of the Invention

The present invention generally relates to the field of electronic documents. More particularly, the present invention relates to a system and method for evaluating and purchasing digital books and other content.

Description of the Related Art

Various systems have been developed for purchasing digital books and other content by various methods, such as over the Internet. However, these systems have generally provided a very limited browsing capability by the prospective purchaser or user. For example, some systems display a static page that may explain the general nature of the book. However, the user is required to purchase and download the book before viewing any content of the book. This does not provide the purchaser with an opportunity to evaluate the book, e.g., to view or browse the book to determine if the content fits the user's needs or requirements.

One category of books where the purchase of a digital form of the book is greatly desired takes the form of "how to" books such as books on information technology or other technologies. In many instances, an electronic shopper may desire to purchase a digital book to answer one or more questions in the book's technology area. However, current systems provide a very limited mechanism for a prospective purchaser to browse a book to determine if the book fits the purchaser's requirements or answers the purchaser's questions.

Therefore, an improved system and method is desired for enabling a prospective purchaser to evaluate and/or browse a book or other digital content prior to purchase. The system and method is also desired for enabling a prospective purchaser to browse a book while not providing or "giving away" too much content of the book or other digital content, thereby obviating the prospective purchaser's need to actually purchase the book.

Summary of the Invention

A system and method are provided for enabling evaluation and purchase of digital books and other content. Digital books and other content may be referred to as "electronic documents." In some embodiments, the evaluation and purchase of electronic documents may occur over the Internet. A document server may be provided. In one embodiment, the document server may include a Web server supporting one or more Web sites. A user on a client system, such as a computer system, may generate a request for at least a portion of an electronic document, such as a page (e.g., web page) of the document, to be evaluated. The document server may receive the request for the page of the electronic document from the client system. The document server may then perform a garbling operation on the page of the electronic document and provide the page of the electronic document to the client system. The client system may then display the page of the electronic document on a display device for the user to evaluate. Thus, the page of the electronic document may be partially garbled and partially non-garbled. The garbled portion of the page of the electronic document is unintelligible to the user, while the non-garbled portion is intelligible to the user of the client system.

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

On the client system, the user may select a link in the electronic document to one or more other pages of the electronic document. The document server may then garble the one or more other pages of the electronic document and provide the one or more other pages of the electronic document to the client system, which may then display the one or more pages on the client system display device.

An electronic document may comprise one or more markup tags. Each of the one or more markup tags is associated with one or more content items in the electronic document. A markup tag may be used to determine whether the markup tag's one or more associated content items are to be garbled by the document server prior to being provided to the client system. The document server may examine a markup tag associated with one or more content items in the electronic document. The document server may garble the one or more content items associated with the markup tag in response to the markup tag indicating the one or more content items are to be garbled, or the document server may not garble the one or more content items associated with the markup tag in response to the markup tag indicating the one or more content items are not to be garbled.

The document server may comprise a table of markup tags. The document server may search the table for a markup tag associated with one or more content items in the electronic document. The document server may garble the one or more content items associated with the markup tag in response to the markup tag not being found in the table, or the document sever may not garble the one or more content items associated with the markup tag in response to the markup tag being found in the table.

Each of the one or more markup tags in the table may be associated with an action indicator. The action indicators may be stored in the table with the markup tags. The document server may garble the one or more content items associated with the markup tag in response to the markup tag being found in the table and an action indicator associated with the markup tag indicating that the one or more content items associated with the markup tag are to be garbled. The document server may not garble the one or more content items associated with the markup tag in response to the markup tag being found in the table and the action indicator associated with the markup tag indicating that the one or more content items associated with the markup tag are not to be garbled. If the markup tag is not found in the table, the document server may garble the one or more content items associated with the markup tag if the one or more content items are textual content, and may not garble non-textual content.

A markup tag may comprise one or more attributes. A markup tag attribute may be used to indicate whether the markup tag's one or more associated content items are to be garbled. The document server may examine a markup tag associated with one or more content items in the electronic document. The document server may garble the one or more content items associated with the markup tag in response to an attribute of the markup tag indicating the one or more content items are to be garbled. The document server may not garble the one or more content items associated with the markup tag in response to an attribute of the markup tag indicating the one or more content items are not to be garbled.

The document server may comprise a table of markup tag attributes. The document server may search the table for a markup tag attribute of a markup tag associated with one or more content items in an electronic document. The document server may garble the one or more content items associated with the markup tag in response to the markup tag attribute not being found in the table. The document server may not garble the one or more content items associated with the markup tag in response to the markup tag attribute being found in the table.

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

Each of the one or more markup tag attributes in the table may be associated with an action indicator. The document server may garble the one or more content items associated with a markup tag in response to a markup tag attribute being found in the table and an action indicator associated with the markup tag attribute indicating that the one or more content items associated with the markup tag are to be garbled. The document server may not garble the one or more content items associated with the markup tag in response to the markup tag attribute being found in the table and the action indicator associated with the markup tag attribute indicating that the one or more content items associated with the markup tag are not to be garbled. If the markup tag attribute is not found in the table, the document server may garble the one or more content items associated with the markup tag if the one or more content items are textual content, and may not garble non-textual content.

Garbling of content may include scrambling one or more textual content items to render the one or more textual content items unintelligible to the user. A textual content item comprises one or more characters, and scrambling the textual content item comprises replacing each of the one or more characters with a different character. Replacing each of the one or more characters with a different character may comprise randomly (or pseudo randomly) selecting a different character from a plurality of characters. In one embodiment, each of the one or more characters may be replaced with a character randomly selected from a set of characters with one or more font characteristics similar to font characteristics of the original character. Font characteristics include, but are not limited to: typeface; size; styles such as bold, Italics, and underline; lowercase and uppercase; and ascenders and descenders. Characters such as punctuation marks, accent marks, and white spaces between words, sentences and paragraphs may be left in the textual content item in their original form (unscrambled). Thus, the textual content items may retain a similar appearance to the original, unscrambled textual content items, while being unintelligible to the user.

Garbling of content may also include masking one or more content items to render the one or more content items unintelligible to the user by replacing the content item with a shaded block. The shaded block may be of substantially similar shape and size as the original content item. Garbling of content may also include removing one or more content items such that the one or more content items are not displayed on the client system display device.

The layout of a displayed portion of an electronic document with at least some of the content garbled before displaying may be substantially the same as the layout of the displayed portion would appear if displayed without garbling. This may operate to provide the user a more accurate "look and feel" of the original document, which may affect the user's decision to purchase the document.

The garbling of portions of the electronic document may not be performed in response to the portions of the electronic document being available for full evaluation by the user of the client system. A portion of the electronic document may include one or more descriptive words, and the document server may not garble the portion in response to locating the descriptive word in the document. The document server may include a table of descriptive words, and may search the portion of the document for the descriptive words in the table, and may not garble the portion in response to locating one of the descriptive words from the table in the portion of the document.

A user may initiate a search operation to locate one or more keywords in the electronic document. The search operation may locate one or more instances of the one or more keywords in the electronic document. A

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

portion of the electronic document proximate to the one or more located keywords may be displayed to the user without garbling, while other portions of the electronic document are garbled before being displayed.

The electronic document may comprise one or more paragraphs comprised of one or more sentences. A first sentence comprising a first instance of a located keyword within a paragraph of the electronic document may be displayed without garbling, while other sentences in the paragraph not comprising located keywords may be garbled before being displayed. If the paragraph comprises a second sentence comprising a second instance of the located keyword, a portion of the second sentence preceding the second instance of the located keyword and a portion of the second sentence following the second instance of the located keyword may be displayed without garbling, and the remainder of the second sentence may be garbled before being displayed.

A user of the document server may select an electronic document for evaluation from a plurality of electronic documents displayed on a client system display screen. The user may then initiate a request to evaluate at least a portion of the electronic document on the client system. The user may initiate a search operation to locate one or more keywords in a plurality of electronic documents. The search operation may locate one or more instances of the one or more keywords in one or more of the plurality of electronic documents. The user may then select an electronic document for evaluation from the one or more of the plurality of electronic documents. The document server may then provide at least a portion of the selected electronic document to the user for evaluation. A portion of the selected electronic document proximate to the one or more located keywords may be displayed without garbling. Other portions of the electronic document may be garbled before being displayed.

Brief Description of the Drawings

A better understanding of the present invention can be obtained when the following detailed description is considered in conjunction with the following drawings, in which:

Figure 1 illustrates a document browser client/server system according to one embodiment of the invention;

Figure 2 is a block diagram illustrating the data flow between a document server system and a document viewer client system according to one embodiment of the invention;

Figure 3 is a flow diagram illustrating the process of a user requesting and viewing a garbled electronic document preview according to one embodiment of the invention;

Figure 4 is a flow diagram illustrating the process of a user previewing and purchasing one or more documents according to one embodiment of the invention;

Figure 5 is a flow diagram illustrating the process of a user requesting a preview of a page of a document according to one embodiment of the invention;

Figure 6 is a flow diagram expanding on step 314 of Figure 5, and illustrates the process a Garbled Preview program may use to select and garble portions of text and other content in a document according to one embodiment of the invention;

Figure 7 is a flow diagram expanding on step 320 of Figure 6, and illustrates the processing of keyword search hits in a document by a Garbled Preview program according to one embodiment of the invention;

Figure 8 is a flow diagram expanding on step 322 of Figure 6, and illustrates the processing of descriptive words in a document by a Garbled Preview program according to one embodiment of the invention;

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

Figure 9 is a flow diagram expanding on step 324 of Figure 6, and illustrates the processing of markup tags in a document by a Garbled Preview program according to one embodiment of the invention;

Figure 10 is a flow diagram expanding on step 386 of Figure 9, and illustrates the processing of a markup tag located in a markup tag table according to one embodiment of the invention;

Figure 11 is a flow diagram expanding on step 384 of Figure 9, and illustrates the processing of a markup tag that is not located in a markup tag table according to one embodiment of the invention;

Figure 12 is a block diagram illustrating one embodiment of a tag and attribute table;

Figure 13 is a block diagram illustrating one embodiment of a descriptive word table;

Figure 14A illustrates an example document for displaying text and other content on a Web browser;

Figure 14B illustrates the displayed text and other content from the document of Figure 14A without garbling of content; and

Figure14C illustrates the displayed text and other content from the document of Figure 14A with garbling of content according to one embodiment of the invention.

While the invention is susceptible to various modifications and alternative forms, specific embodiments are shown by way of example in the drawings and will herein be described in detail. It should be understood however, that drawings and detailed descriptions thereto are not intended to limit the invention to the particular forms disclosed. But on the contrary the invention is to cover all modifications, equivalents and alternatives following within the spirit and scope of the present invention as defined by the appended claims.

Detailed Description of the Preferred Embodiment

Figure 1: A document browser client/server system

Figure 1 illustrates a document browser system according to one embodiment of the invention. Figure 1 illustrates a simplified example of a client/server system for accessing and viewing or evaluating documents. However, it is noted that the present invention may be included in any of various types of systems as desired. Figure 1 includes at least one document server system 10 that connects through a network 12 to one or more document viewer client systems 14A and 14B. Server system 10 is preferably a computer system and may include various standard components, including one or more processors or CPUs, a memory medium, one or more buses, one or more network ports for connecting to and communicating over networks such as network 12, etc. Client systems 14A and 14B may be any of various types of devices, including a computer system, Internet appliance, information appliance, personal digital assistant (PDA), television (e.g., digital television), set top box or cable modem, or other similar devices. Each of client systems 14A and 14B may comprise standard computer components such as a processor or CPU, memory medium, and/or display, one or more network ports for connecting to and communicating over networks such as network 12, etc. The network 12 may be any of various types or combinations of local area network and/or wide area network, including the Internet.

The term "computer system" as used herein generally describes the hardware and software components that in combination allow the execution of computer programs. The computer programs may be implemented in software, hardware, or a combination of software and hardware. A computer system's hardware generally includes a processor, memory medium, and input/output (I/O) devices. A computer system may take various forms,

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

including a personal computer system, mainframe computer system, workstation, network appliance, Internet appliance, information appliance, personal digital assistant (PDA), television system or other device. In general, the term "computer system" can be broadly defined to encompass any device having a processor that executes instructions from a memory medium.

As used herein, the term "processor" generally describes the logic circuitry that responds to and processes the basic instructions that operate a computer system. The term "memory medium" includes various types of memory including an installation medium, e.g., a CD-ROM, or floppy disks; a volatile computer system memory such as DRAM, SRAM, EDO RAM, Rambus RAM, etc.; or a non-volatile memory such as optical storage or a magnetic medium, e.g., a hard drive. The term "memory" is used synonymously with "memory medium" herein. The memory medium may comprise other types of memory or combinations thereof. In addition, the memory medium may be located in a first computer in which the programs are executed, or may be located in a second computer that connects to the first computer over a network. In the latter instance, the second computer provides the program instructions to the first computer for execution.

The memory medium comprised in the server computer system 10 preferably stores a software program or programs for enabling server computer system 10 to store, retrieve, and send digital content to client systems 14A and 14B, and to garble digital content prior to sending the content to client systems 14A and 14B. The memory medium comprised in the client systems 14A and 14B may include browser software for enabling the client systems 14A and 14B to display content received from the server computer system 10. The software program(s) may be implemented in any of various ways, including procedure-based techniques, component-based techniques, and/or object-oriented techniques, among others. For example, the software program may be implemented using ActiveX controls, C++ objects, JavaBeans, Microsoft Foundation Classes (MFC), or other technologies or methodologies, as desired. A CPU executing code and data from a memory medium includes a means for creating and executing the software program or programs according to the methods, flowcharts, and/or block diagrams described below.

Various embodiments further include receiving or storing instructions and/or data implemented in accordance with the foregoing description upon a carrier medium. Suitable carrier media include memory media or storage media such as magnetic or optical media, e.g., disk or CD-ROM, as well as signals such as electrical, electromagnetic, or digital signals, conveyed via a communication medium such as networks and/or a wireless link.

A server program may be defined as a computer program that, when executed, provides services to other computer programs executing in the same or other computer systems. The computer system on which a server program is executing may be referred to as a server, though it may contain a number of server and client programs. In the client/server model, a server program may await and fulfill requests from client programs in the same or other computer systems. An example of a computer program that may serve as a server is Windows NT server, available from Microsoft Corporation.

A Web server may be a program that uses the client/server model and Hypertext Transfer Protocol (HTTP) to serve the files that form Web pages to Web users, whose computers contain HTTP clients, or Web browsers. A Web browser may be a client program that may use HTTP or similar protocols to make requests of Web servers throughout the Internet. Examples of Web servers include, but are not limited to: Microsoft's Internet Information Server (IIS), NetScape's FastTrack and Enterprise servers, Novell's Web Server for NetWare operating system, and

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

IBM's family of Lotus Domino servers. Examples of Web browsers include, but are not limited to: Netscape Navigator and Microsoft Internet Explorer.

A Web server may support one or more Web sites. A Web site is a related collection of Web files that includes a beginning file called a home page. The home page and other pages of the Web site may be reached using a Uniform Resource Locator (URL). A URL is the address of a file or resource accessible on the Internet. From the home page, all the other Web pages on a Web site may be reached. A Web site is not a Web server. A Web server may hold the files for one or more Web sites. A Web site may be spread over a number of Web servers.

Web frames may be used in creating multiple, independently controllable sections on a Web page. Web frames may be created by describing each section in a separate Web file and having one Web file identify all of the sections. When a user requests a Web page that uses Web frames, the address requested is that of the Web file that defines the Web frames. Multiple Web files are returned in response to the request, one for each section of the Web page. Hyperlinks in one Web frame may request another Web file that may appear in another (or the same) Web frame. An example of the use of Web frames is to have a file selection menu in a first frame, and a second frame for displaying the contents of a selected file. As used herein, the term "Web page" generally includes Web pages implemented with Web frames, as well as Web pages implemented without Web frames.

Garbling Electronic Documents

The document server system 10 may operate to garble a portion or all of an electronic document provided to client system 14A or 14B. The following is a general description of the organization of and markup language used in electronic documents in the preferred embodiment. The following also describes garbling used in the preferred embodiment of the invention.

The term "markup" as used herein refers to a sequence of characters or other symbols that may be inserted in a document, such as a text or word processing file to indicate how the document should appear when it is printed or displayed, or to describe the document's logical structure. The markup indicators may be called "markup tags" or "tags." For example, a paragraph may be preceded by a <p>, or paragraph tag, so that it will be separated by an empty line from the preceding line. Markup may be inserted directly by typing the symbols in, by using an editor and selecting prepackaged markup symbols, or by using a more sophisticated editor that lets the user create the document as it will appear.

Markup tags may be classified into several categories. Examples of markup tag categories include, but are not limited to: meta tags, document tags, outline tags, style tags, break tags, link tags, and custom tags. Meta tags may allow a document to be embedded into another document, possibly of another markup language. For example, meta tags in an HTML document may allow the document to be embedded into a larger SGML (Standard Generalized Markup Language) document and be properly displayed. SGML is a standard for how to specify a document markup language or markup tag set. SGML is not in itself a document language, but a description of how to specify one. Document tags may be used to divide a document into parts. For example, document tags may be used to divide a document into one or more headings and a body. Outline tags may be used to divide a document into major sections and subsections. Style tags may be used to define the kind of text being displayed, text formatting, etc. Style tags may include literal character style tags, logical character style tags, various kinds of

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

list tags, figure tags, table tags, etc. Break tags may be used to break a document into pieces separated by white space. Link tags may be used to insert hypertext links (hyperlinks) in a document.

HTML (Hypertext Markup Language) is a set of markup tags inserted in a file intended for display on a World Wide Web browser. The markup tags tells a Web browser how to display a Web page's words and images for the user. HTML is a standard recommended by the World Wide Web Consortium and adhered to by major browsers, including Microsoft's Internet Explorer and Netscape's Navigator. Web browsers may also provide some additional non-standard markup tags. In addition, custom markup tags may be created for documents. In HTML, markup tags may comprise a left angle bracket (<), a tag name, and a right angle bracket (>). Markup tags are usually paired (e.g., <H1> and </H1>) to start and end the tag instruction. The end tag may look like the start tag except for a slash (/) preceding the text within the brackets. The start and end tags may be referred to as a "tag pair." Markup tags may be nested. Line 108 of Figure 14A shows an example of nested tags, where <B> and </B> are nested within <A> and </A>. A markup tag may include one or more attributes. A markup tag attribute may be enclosed in the brackets <> enclosing the tag. For example, in the HTML tag <FONT SIZE=7 COLOR="red">, the attribute SIZE may be used to change the text size of the text following the tag, and the attribute COLOR may be used to change the text color of the text following the tag. The value assigned to a tag attribute may be referred to as the attribute value. In the example above, the attribute SIZE has the attribute value 7.

XML (Extensible Markup Language) is similar to HTML. Like HTML, XML includes markup tags to describe the contents of a page or file. XML is a flexible way to create common information formats and share both the format and the data on the World Wide Web, intranets, and elsewhere. HTML describes the content of a Web page only in terms of how the page is to be displayed and interacted with. For example, a <P> starts a new paragraph. XML describes the content in terms of what data is being described. For example, a <PHONENUM> could indicate that the data that followed it was a telephone number. An XML file may be processed purely as data by a program, may be stored with similar data on another computer or, like an HTML file, may be displayed. XML is extensible because, unlike HTML, the markup tags are unlimited and self-defining. HTML and XML may be used together in Web applications.

As used herein, a "hyperlink" is a selectable connection from one word, picture, or information object to another using hypertext. In a multimedia environment such as the World Wide Web, such objects can include sound and motion video sequences. Hyperlinks may also be used to initiate programs and applets such as Java applets, and tasks such as a download of a file to a client system. The most common form of hyperlink is the highlighted word or picture that may be selected by a user (with a mouse or in some other fashion), resulting in the substantially immediate delivery and view of another object such as a document, Web page, etc, or the initiation of a program, applet, or task. The highlighted object may be referred to as an anchor. The anchor and the object the anchor refers to constitute a hyperlink. Electronic documents may include hyperlinks that, when selected, may deliver and display another section or page in the current document, or may deliver and display a page in another document, another Web page, another Web site, etc. Electronic documents may also include hyperlinks that, when selected, initiate a program, applet, or task.

As used herein, a "document" may be a collection of one or more of text, image, hyperlink, tabular, or other information or content. An "electronic document" is a document that is in a form suitable for storing on a memory medium, transmittal via electronic connection such as a network, and/or viewing on a computer, such as

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

on a computer display screen. An electronic document may have interactive elements that may perform one or more actions in response to user input, such as a hyperlink that, when selected by a user, may link the user to another portion of the electronic document, or to another electronic document. Electronic documents may include, but are not limited to: books, manuals, journals, newspapers, magazines, articles, papers, video, movies, images, sounds, and combinations thereof.

As used herein, an "element" is a fundamental component of the structure of a document. Some examples of elements are heads, tables, paragraphs, and lists. Markup tags may be used to mark the elements of a file for a browser. Elements may include plain text, other elements, or both.

A document may be segmented into sections, chapters, pages, articles, or other logical units for organizational or viewing purposes. On the Internet, an entire electronic document may be stored and viewed as one Web page, or the document may be segmented into a plurality of Web pages. One or more logical units or portions of logical units of the document may be stored and viewed on each Web page. For example, one Web page may be used to store and view one page of an electronic book, one Web page may be used to store and view one page and a portion of a second page of an electronic book, one Web page may be used to store and view multiple pages of the electronic book, or one Web page may be used to store and view one page or article of an electronic magazine or newspaper. When an electronic document is segmented into more than one Web page, there may be hyperlinks on the Web pages that may allow a viewer to navigate through the document. For example, there may be hyperlinks to the previous Web page and to the next Web page, hyperlinks to a Web page including a document index from which other sections of the document may be reached via hyperlinks, hyperlinks to the Web page at the beginning of the current chapter or at the beginning of the next chapter, hyperlinks to the beginning of the document, etc.

Alternatively, an electronic document may be stored and viewed as a plurality of Web frames on a Web page. In one embodiment, at least one Web frame on a Web page may be used to display the contents of sections or portions of sections of the electronic document, and at least one Web frame on the Web page may be used to display a table of contents, index, or other document information with hyperlinks useable to navigate among the sections of the document.

As used herein, the term "portion," when referring to an electronic document, may refer to one or more of the logical units, portions of logical units, sections, Web pages, or other parts of electronic documents as described above. The term "at least a portion" may include one or more portions and/or the entire electronic document.

A Web page may be too large to be viewed in its entirety on a client system display screen. A portion of the Web page may be displayed on the display screen, and an interface on the client system may provide one or more methods to allow the user of the client system to view other portions of the Web page. For instance, scroll bars or buttons may be provided to allow the user to scroll to other portions of the Web page.

As used herein, the term "content" is used to describe the objects or data that may appear in electronic documents. Examples of content may include, but are not limited to: text, lists, tables, images, graphs, charts, hyperlinks, movies, sound files, animations, and advertisements. Note that an electronic document may include "content" that, by itself, would be considered an electronic document. The content in an electronic document may be enclosed within markup tag pairs. For example, a tag pair may enclose a paragraph of text. Another tag pair may enclose a list. Yet another tag pair may enclose an image.

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

As used herein, the term "garbled preview" refers to displaying a requested document with selected content items garbled. It is noted that the content items to be garbled may be selected through a pre-determined algorithm or table(s), or may be randomly selected, or combinations thereof. A "garbled preview" may optionally preserve enough content items to give the requestor an understanding of the general nature or contents of the document, without "giving away" the entire contents of the document. For example, chapter and section headings in a document may be intelligibly displayed, while the paragraph text is unintelligibly garbled. A "garbled preview" may also optionally preserve the original layout of the electronic document, e. g., by maintaining original paragraph and word sizes and other layout features of the electronic document.

As used herein, the term "garble," in regards to the content of an electronic document, refers to one or more of scrambling, masking, removing, or otherwise rendering at least a portion of the contents of the electronic document unintelligible, so as to provide a preview of the document without "giving away" the entire contents of the document. As used herein, the term "ungarbled" refers to content of the electronic document that has not been garbled, and is therefore intelligible to a user previewing the document. Content may be said to be intelligible to a user when it is readable or potentially understandable by the user (e.g., assuming the user is capable of understanding the technical nature of the content).

As used herein, to "scramble" content in an electronic document is to render the content unintelligible by rearranging, replacing, or otherwise modifying the elements within the content. Examples of scrambling of content in an electronic document may include, but are not limited to: randomly (or pseudo randomly) substituting a character for each character in a paragraph of text in the document; randomly (or pseudo randomly) substituting nonsense words for each word in the document; and randomly (or pseudo randomly) reordering the pixels within a digital image in the document.

As used herein, to "mask" content in an electronic document is to render the content unintelligible by displaying optionally shaded blocks in place of, or on top of, the content to be masked. Examples of masking of content in an electronic document may include, but are not limited to: replacing the words in a paragraph of text in the document with shaded blocks; replacing entire sections of text (such as paragraphs) with shaded blocks; and replacing digital images in the document with shaded rectangles.

As used herein, to "remove" content in an electronic document is to render the content invisible by not displaying the content. The area where the content would appear if not removed may optionally display the background of the electronic document. Thus, a user may not be able to discern that there is missing content. For example, a hyperlink that initiates a download of an image may be removed from a portion of an electronic document displayed on a Web page, and the normal background of the Web page may be displayed where the hyperlink would be if displayed.

In one embodiment, document content, such as words, sentences or paragraphs within textual content items, may be randomly selected for garbling or not garbling. An example of random selection of content for garbling or not garbling is to garble words within paragraphs, leaving an occasional, randomly selected word ungarbled. Another example is to garble words within paragraphs, leaving every nth word ungarbled, where n is a value greater than one; for example, every tenth word may be left ungarbled.

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

Figure 2: Presenting a Garbled Document to a User

Figure 2 illustrates the data flow between a document server system and a document viewer client system according to one embodiment of the invention. The document server system 10 shown in Figure 1 may store various server programs. As shown in Figure 2, the document server system 10 may include a document server program 50 and a Garbled Preview program 52. Document server system 10 may also be coupled to one or more storage devices or memory medium for storing documents 54. Documents 54 may include any type of electronic document such as books, magazines, articles, manuals, etc. In one embodiment, document server system 10 may include a Web server program (not shown) to provide Web-based access to the server and its programs and services, including Web pages on the server.

Document viewer client system 14 in Figure 2 is an example of a client system, such as client systems 14A and 14B shown in Figure 1. Document viewer client system 14 may include a document viewer program 60. In one embodiment, document viewer program 60 is a Web browser. Examples of Web browsers include, but are not limited to: Microsoft Internet Explorer and Netscape Navigator.

A user of document viewer client system 14 may request to view, or preview, a document available on document server system 10. In one embodiment, the user may select the document from a plurality of documents available on document server system 10. A document request 70 may be sent from document viewer client system 14 to document server system 10. In one embodiment, document viewer program 60 is a Web browser, and requesting a preview of a document may include the user selecting the document on a document preview Web page served to the Web browser by a Web server program on document server system 10, the user requesting a preview of the selected document, and the Web server forwarding the document request 70 to document server program 50.

Document server program 50 may retrieve the requested document 72 from stored documents 54 in response to receiving the document request 70. Document server program 50 may then send document 72 to Garbled Preview program 52. Garbled preview program 52 may garble various portions of the text and other content of document 72, and send the garbled document 74 to document viewer client system 14. In one embodiment, Garbled Preview program 52 may be a separate program from document server program 50. In another embodiment, Garbled Preview program 52 may be integrated as a function within document server program 50. In one embodiment, document viewer program 60 is a Web browser, and Garbled Preview program 52 may send garbled document 74 to a Web server program on document server system 10, and the Web server program may then send garbled document 74 to be displayed on a Web page displayed by document viewer program 60. Document viewer program 60 may display garbled document 74 on a display screen 62 coupled to document viewer client system 14 in response to receiving garbled document 74. Some or all of the text and other contents of the displayed document may be garbled.

A requested document may have more than one page, and document viewer program 60 may provide an interface for the user to browse through the multiple pages of the document one page at a time. In the preferred embodiment, document server system 10 may read, garble and send one page of the requested document at a time for display by document viewer program 60. In another embodiment, more than one page of a multi-page document may be read, garbled, and sent for display at a time.

In the preferred embodiment, the document server system 10 may perform dynamic garbling. In dynamic garbling, the document server system 10 garbles a portion of an electronic document in response to a user

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

requesting to view the portion of the electronic document during an evaluation of the document. In another embodiment, the document server 10 maintains a garbled and non-garbled version of one or more documents stored on a memory medium coupled to the document server system 10. In this embodiment, the document server system 10 may perform a garbling operation on the electronic document and store the electronic document on the memory medium coupled to the document server system 10 prior to the user requesting to evaluate the electronic document. The document server system 10 then may provide a previously garbled portion of the document to the user in response to the user requesting to view the portion of the electronic document during the evaluation of the document.

In some embodiments, one or more electronic documents may be provided for evaluation by a user by electronic methods other than a network such as the Internet. For example, a carrier medium such as a CD-ROM including one or more electronic documents may be provided to the user by a vendor. The carrier medium may include a program, similar to the document server and browser programs as described herein, executable by the computer system used by the user, with a user interface for searching and otherwise browsing the electronic documents on the carrier medium. The carrier medium may also include a Garbling Program, similar to the Garbling Program described herein, executable by the computer system used by the user to garble portions or all of an electronic document selected for evaluation by the user. Alternatively, the programs required to browse, garble, and view the electronic documents may reside on a separate memory medium, such as a hard disk in a computer system coupled to a CD-ROM drive used by the user. For instance, the user may download one or more programs for searching, selecting, garbling and viewing electronic documents from a Web site to a local memory medium, and may receive the carrier medium including one or more electronic documents for evaluation separately. If the user purchases an electronic document, an electronic key such as a password may be provided to the user by the vendor supplying the carrier medium to "unlock" the document for full viewing without garbling. Alternatively, the vendor may send the user an ungarbled, printed version or an ungarbled, electronic version of the document. In other embodiments, the user may be provided electronic documents previously garbled by a Garbling Program as described herein, and the user may view the documents with a viewer program provided with the documents or with one or more other programs such as word processors. If the user purchases an electronic document, the vendor may provide ungarbled versions of the document to the user.

In some embodiments, a document server program and Garbling Program may be separate programs or executable files. In other embodiments, the programs may be included in one program or executable file. In yet other embodiments, one or more of the programs may be software modules usable by other programs, for instance through an Application Programming Interface (API). For example, the Garbling Program may be implemented as a software module callable by a document server program or by other programs that may want to garble content as described herein. In the embodiments described above where electronic documents are delivered to the user on a carrier medium such as a CD-ROM, a document server program, Garbling Program, and document browser program may be integrated into one program or executable file, or may be stored in one or more separately executable files.

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

Figure 3: Requesting and viewing a garbled electronic document preview

Figure 3 is a high-level flow diagram of a process of requesting and viewing or evaluating an electronic document according to one embodiment of the invention. In step 80, a user of a client system 14 may request to view a portion or all of an electronic document. The request to view a portion or all of the electronic document may be received by a document server 10 in electronic communications with the client system 14. In one embodiment, the document server 10 may include a Web server, and the user may access a Web site on the document server 10 using a Web browser on the client system 14. The electronic document may be chosen for viewing by the user from a list of one or more electronic documents displayed to the user on a Web page of the Web site. The user may then select the electronic document, e. g., a portion of the electronic document, for viewing. For example, the user may select an electronic book for viewing. A table of contents of the book may be displayed to the user, and the user may then select a chapter of the book for viewing.

The electronic document selectable for viewing by the user may be stored in a Web page document. A Web page document may include the markup language and content required to display Web pages on a Web browser. For example, if a document is segmented into chapters for viewing, each chapter may be stored in one Web page document. The Web page document may be used by the Web server to present one Web page on the Web browser on the client system. An HTML Web page document may be stored in a file with an .HTML file extension. Other markup languages may use other formats and nomenclatures for storing Web page documents.

In step 82, the document server 10 may perform a garbling operation on the portion of the document selected for viewing by the user. Portions of the content of the selected portion of the document may be garbled, and portions of the content may be left ungarbled for the user to view. Text and other content to be garbled may be scrambled, masked, removed, or otherwise garbled. Garbling is described in detail below.

In step 84, the garbled portion of the electronic document may be sent to the client system for viewing by the user. In one embodiment, the document server includes a Web server coupled to the Internet 12, and the client system 14 is also coupled to the Internet 12. The client system 14 may include a Web browser for receiving and displaying the garbled portion of the electronic document from the document server.

In step 86, the garbled portion of the electronic document may be displayed on the client system 14 for viewing by the user. In one embodiment, the client system Web browser may display the portion of the electronic document in a Web page on the client system display screen.

In one embodiment, the displayed garbled portion of the electronic document may retain the general format and/or characteristics of the portion of the document without garbling. In other words, the scrambling, masking, and removal of contents in a section of the electronic document may be performed so that the scrambled, masked, and removed content does not alter the layout of the document section. In one embodiment, one symbol or character is replaced with only one different symbol or character, and thus word sizes and paragraph sizes remain the substantially the same. Also, one or more of the font characteristics of scrambled text may be retained. For example, uppercase letters may be replaced with randomly selected uppercase letters, and lowercase letters with randomly selected lowercase letters. Lowercase letters with ascenders and descenders may be replaced with randomly selected lowercase letters with similar ascenders and descenders, where possible. For example, the letters [b, d, f, h, k, l] have ascenders, and may be replaceable with each other, and the letters [g, j, p, q, y] have descenders and may be replaceable with each other. In the above instances, the character replacement may be

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

described as pseudo random, instead of purely random. Text in italics or bold may be replaced with random text also in italics or bold. Underlined text may be replaced with underlined text. In one embodiment, spaces and punctuation marks may be left unscrambled. Masked images may be masked with shaded rectangles of the same size as the images. Removed content may be replaced with "white space" or background of the same dimension as the removed content to retain the original format of the document. The retention of the original layout in the garbled portion of a displayed electronic document operates to provide the user with the approximate "look and feel" of the document, which may be useful to the user in selecting the document for purchase.

Figure 4: Previewing and purchasing one or more documents

Figure 4 is a flow diagram illustrating the process of a user previewing and purchasing one or more documents according to one embodiment of the invention. In step 200, the user may access a document server Web site. In one embodiment, the document server 10 may present an interface to the user for selecting one or more of the electronic documents on the document server for preview. In one embodiment, the user may use a Web browser on a client system 14 connected to the document server 10 via the Internet to access the document server Web site, and the document server Web site may present one or more Web pages to the user on the Web browser for displaying information and accepting user input as described herein.

In one embodiment, the document server may present an interface to the user for searching the electronic documents for one or more keywords. The user may enter one or more keywords to be searched for in the interface presented by the document server 10 in step 202. In one embodiment, the document server may allow the user to enter one or more logical and/or grouping operators for locating more than one word. Examples of logical operators include, but are not limited to: an AND operator entered between two words that instructs the search process to locate documents containing both words; and an OR operator entered between two words that instructs the search process to locate documents containing either word. An example of a grouping operator are quotation marks placed around a group of words, or phrase, that instruct the search process to locate documents containing the entire group of words or phrase. Any of various electronic document content search systems may be used.

In step 204, the documents on the document server 10 may be searched for occurrences of the entered keywords. In step 206, the document server 10 may display to the user a list of one or more documents containing at least one occurrence of at least one of the one or more keywords in response to locating the keywords in the one or more documents. An occurrence of a keyword may also be called a "search hit." If no document containing a search hit is located, a message may be displayed to the user stating that no occurrence of the one or more keywords was found in the documents, and no list of documents may be displayed to the user.

In step 208, the user may select one of the one or more displayed documents for viewing. The user may select a document from the list of documents containing search hits, if the user previously entered one or more keywords for searching, and one or more documents was located containing search hits for the keywords. Alternatively, the document may be selected from among all of the documents available on the document server. The display of a document for selection by a user may include a description of the contents of the document to aid the user in selecting a document from the list. The display of a document for selection from a list of documents including search hits may include the number of hits and/or one or more examples of occurrences of keywords in the document to aid the user in selecting a document from the list.

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

In step 210, the document server 10 may provide at least a portion of the document to the user for preview. The document server 10 may provide a first portion of the document, such as a first Web page of the document. In one embodiment, the first Web page may include an introduction and table of contents of the document. The document server 10 may provide an interface to the user for navigating among Web pages including sections of the document. For example, the document server 10 may provide "Previous" and "Next" buttons that allow the user to view previous and next sections of the document. Another example of an interface that may be provided to the user for navigating among sections of the document is a list of sections including search hits that may be displayed, allowing the user to display one or more sections in the document containing search hits.

The document server 10 may garble at least a portion of the document prior to the document being provided to the user for preview. Garbling may include scrambling at least a portion of the text content of the portion of the document, and/or masking or removing other parts of the document content, such as graphics, images and hyperlinks. Portions of the displayed portion of the document may be left ungarbled to provide the user with a preview of the document, without revealing the entire contents of the document. For example, search hits may be left ungarbled. In one embodiment, part or all of the sentence containing a search hit may be left ungarbled to provide the user with the context of the search hit. Portions of the document with certain attributes may be left ungarbled. For example, the table of contents, bibliography, and sections including the descriptive words "Introduction" and "Overview" may be left ungarbled. Sections with other attributes, and sections including other descriptive words, may be left ungarbled. Garbling portions of the document, while leaving ungarbled portions of the document with certain attributes, keyword search hits, or descriptive words, may provide the user with a preview of the document that may assist the user in deciding if the document being previewed is to be purchased in steps 212 and 214. For reference books, the selective garbling of the document may provide the user with sufficient ungarbled content to evaluate the content contained therein, while not providing the user with answers to the specific questions the user may have, thereby not obviating the need for the user to purchase the book and thus view the entire contents of the book ungarbled.

In step 212, the user may evaluate the document. Evaluating the document may include the user navigating among and viewing several sections of the document. For example, the user may select and view all sections containing search hits. The user may read ungarbled portions of the document during the evaluation. As mentioned above, garbled portions of the document may be visually formatted as if the portions were left ungarbled, thus providing the user with the visual format or layout of the document without revealing the contents of the document.

In step 214, the user may decide whether to purchase the electronic document. If the user decides to purchase the document, the document may be purchased in step 216. Purchasing the document may be accomplished with any of a variety of electronic purchasing options such as by credit card, debit card, etc. In one embodiment, the document may be added to an "electronic shopping cart" for later purchase. A purchased document may be delivered to the user as an electronic document, or may be delivered to the user as a printed document. In one embodiment, a purchased electronic document may be maintained for the user on the document server 10, and the user may view the purchased ungarbled electronic document through a Web browser using a logon and password, or by other authentication methods.

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

After the user purchase the document in step 216, or if the user decides not to purchase the document at this time in step 214, the process may proceed to Step 218. In step 218, the user may decide whether to review or evaluate another electronic document. If the user decides to evaluate another document, the process may return to step 208 to allow the user to select another document from the one or more displayed documents. If the user decides not to evaluate another document at this time, the process may proceed to step 220. In step 220, the user may decide to perform another keyword search. If the user decided to perform another keyword search, the process may return to step 202 to allow the user to enter one or more keywords for searching the documents. If the user decides not to perform another keyword search at this time, the process illustrated in Figure 4 may end. If one or more documents were placed in an "electronic shopping cart" for later purchase, the documents may be purchased at this time.

Figure 5: Requesting a preview of a page of a document

Figure 5 illustrates the process of a user requesting a preview of a page of a document according to one embodiment of the invention. A "page" may include a portion of the document viewable in one Web page on a Web browser, and, for example, may include one or more numbered pages of an electronic book, magazine, etc. The request may be made by the user from a Web browser to the document server 10. The document may have been previously selected by the user for preview in a process similar to that described in Figure 4.

The document server 10 may display a list of pages for selection in an interface presented to the user on the Web browser. In step 300 of Figure 5, the user may select a page to be viewed from among one or more pages of the document displayed by the document server 10. Alternatively, the document browser may provide an interface on the Web browser for the user to enter a page number, or other document section number such as a chapter number, to allow the user to select a page or other section of the document for preview. Step 300 is similar to step 208 of Figure 4.

The following steps 302-316 roughly correspond to step 210 of Figure 4. In step 302, the document server 10 may retrieve the page of the document requested by the user in step 300. In one embodiment, the electronic document may be stored on a non-volatile memory such as a magnetic medium or disk drive coupled to the document server 10. In one embodiment, at least a portion of the document may have been previously loaded (or cached) into system memory of document server 10 to provide faster access to the document. In step 304, the document server 10 may examine preferences and access privileges of the user. The user's preferences may be used in determining one or more display preferences for viewing the page of the document, such as whether to highlight keyword search hits, and what color is to be used for highlighting the search hits. The user's access privileges may be used in determining what the user may view in the document. For example, if the user has already purchased the document, the user's access privileges may allow the user to view the entire document without garbling. A user may pay a subscription fee to enable the user to view electronic documents with reduced garbling of contents, and the subscription status of the user may be stored in the user's access privileges.

In step 306, the document server 10 may determine if the user has previously entered one or more keywords to search for in the document. If the user has entered keywords to search for, the document server 10 may check if the user has requested search hit highlighting in step 308. If the user has requested search hit highlighting, the document server 10 may insert highlight markup tags around search hits located on the requested

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

page in step 310, and then proceed to step 312. If the user has not entered keywords to search for, or if the user has not requested search hit highlighting, step 310 may be bypassed and the processing may proceed to step 312.

In step 312, the document server 10 may determine if the user has full access to the requested page. If the user does have full access to the requested page, the ungarbled requested page may be returned to the client system 14 in step 316, and may be displayed by the Web browser on the client system 14 for the user to view. If the user does not have full access to the requested page, the Garbled Preview program may be run on the requested page in step 314 prior to returning the requested page to the client system for the user to view. Thus, the Garbled Preview program is preferably run dynamically in real-time as document pages are requested by the user. Step 314 is illustrated in detail in Figure 6.

Figure 6: Step 314 of Figure 5; Garbling content in a document

Figure 6 expands on step 314 of Figure 5, and illustrates the high-level processing of a user-requested page by a Garbled Preview program according to one embodiment of the invention. The steps in Figure 6 may occur concurrently or in different orders. In step 320, the Garbled Preview program may process keyword search hits. The search hits are instances of one or more user-specified keywords that were searched for in a portion of the document, in the entire document, or in a plurality of documents on the document server 10. Processing a search hit may include inserting one or more markup tag pairs around the search hit. An inserted markup tag pair may indicate that the content enclosed in the markup tag pair is not to be garbled. In one embodiment, the markup tags may be inserted around the search hit word, or alternatively may be inserted around a portion of or the entire sentence where the search hit word is located. Step 320 is further illustrated in Figure 7.

In step 322 of Figure 6, the Garbled Preview program may process one or more descriptive words. Processing the one or more descriptive words may include searching for the one or more descriptive words in the portion of the document selected by the user to be viewed. In one embodiment, the descriptive words to be searched for may be read from a descriptive word table on the document server 10. Processing the one ore more descriptive words may include inserting one or more markup tag pairs in the section of the document wherein a descriptive word is located by the search. An inserted markup tag pair may indicate that the content enclosed in the markup tag pair is not to be garbled. In one embodiment, the markup tag pair may be inserted around a portion or all of the section of the document containing the located descriptive word. In another embodiment, the markup tag pair may be inserted around a portion or all of the section of the document following the section containing the located descriptive word. In yet another embodiment, the markup tag pair may be inserted around the entire Web page to be displayed, thus not garbling the entire Web page for display. Step 322 is further illustrated in Figure 8.

In step 324 of Figure 6, the portion of the document to be displayed to the user on the Web page may be searched for markup tags, the markup tags enclosing content may be examined and processed, and the contents of the markup tags may be garbled or left ungarbled and therefore intelligible to the user in response to the processing of the markup tags. In one embodiment, processing the markup tags may include searching for occurrences of the markup tags from the portion of the document in a tag and attribute table. In one embodiment, there may be at least one table for markup tags and at least one table for markup tag attributes. In another embodiment, the tag and attribute table may be combined in one table. In yet another embodiment, the markup tag, attribute, and descriptive word table may be combined into one table. When a markup tag is located in the tag and attribute table, an action

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

indicator for the located markup tag in the table may be examined. In one embodiment, the action indicator may indicate that the contents are to be masked, removed, or left ungarbled. If a markup tag is not located in the table, the contents of the markup tag may be examined to see if the markup tag includes one or more attributes. If the markup tag includes one or more attributes, the tag and attribute table may be searched for occurrences of the attributes. If one of the one or more attributes is located in the table, an action indicator for the located attribute in the table may be examined. In one embodiment, the action indicator may indicate that the contents are to be masked, removed, or left ungarbled.

Figure 7: Step 320 of Figure 6; Processing keyword search hits in a document

Figure 7 is a flow diagram expanding on step 320 of Figure 6, and illustrates the processing of keyword search hits in a document by a Garbled Preview program according to one embodiment of the invention. The user may have previously requested a portion (page) of the document for viewing as described in Figure 5. In step 330 of Figure 7, the Garbled Preview program may check to see if the requested page contains one or more search hits. In one embodiment, search hits may have been marked in the document by inserting a <hit> tag pair around each search hit. In another embodiment, the Garbled Preview program may search the requested page for occurrences of keywords previously entered by the user. If the requested page contains no search hits, the rest of the flow diagram of Figure 7 is skipped. If the requested page contains one or more search hits, processing may proceed to step 332.

In step 332, the Garbled Preview program may get the next search hit to be processed on the requested page. In one embodiment, the Garbled Preview program may proceed from the first search hit to the last search hit, from top to bottom on the requested page. In one embodiment, the Garbled Preview program may examine each paragraph on the requested page for search hits, and may perform different actions on the first occurrence of a keyword than on a subsequent occurrence of the keyword in a paragraph. In step 334, the Garbled Preview program may check to see if the search hit is the first search hit within the current paragraph. If the first paragraph on the requested page continues from the previous page, the Garbled Preview program may check to see if the portion of the paragraph on the preceding page contains a first search hit. If this is the first search hit within the current paragraph, the Garbled Preview program may insert a tag pair around the entire sentence containing the search hit in step 336, wherein the inserted tag pair indicate that the sentence is not to be garbled. If this is not the first search hit within the current paragraph, the Garbled Preview program may insert the tag pair around a portion of the sentence containing the search hit in step 338, wherein the inserted tag pair indicate that the portion of the sentence is not no be garbled. In one embodiment, the tag pair may be inserted before the word preceding and the after the word following the search hit. Other embodiments may include other numbers of words preceding and following the search hit in the tag pair.

If the search hit is the first word in a sentence, the first tag in the tag pair may be inserted just prior to the search hit. If the search hit is the last word in the sentence, the second tag in the tag pair may be inserted just after the search hit. Alternatively, the tag pair may be extended into the sentence preceding and/or following the sentence containing the search hit when the search hit's location in the sentence requires the extension of the ungarbled portion beyond the boundaries of the sentence.

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

In step 340, if there are more search hits on the requested page, processing may return to step 332, where the next search hit may be processed. If the requested page contains no more search hits, then the processing of keyword search hits may end.

Figure 8: Step 322 of Figure 6; Processing descriptive words in a document

Figure 8 is a flow diagram expanding on step 322 of Figure 6, and illustrates the processing of descriptive words in a document by a Garbled Preview program according to one embodiment of the invention. In one embodiment, the document server 10 may include a descriptive word table wherein one or more descriptive words may be stored. A descriptive word is a word that, when occurring in the document, causes at least a portion of the document containing the descriptive word to not be garbled. For example, the descriptive word table may include words such as "Introduction," "Copyright," and "Overview." Descriptive words differ from keywords in that descriptive words are predefined in the descriptive word table or elsewhere in the document server 10, while keywords are entered by the user during a document preview session on the document server 10. An example of one embodiment of a descriptive word table is illustrated in Figure 13.

The user may have previously requested a page of the document for viewing as described in Figure 5. In step 350 of Figure 8, the Garbled Preview program may access and examine the descriptive word table. If the table contains one or more descriptive words, the Garbled Preview program may get the first descriptive word from the table in step 352. The Garbled Preview program may then search the requested page for occurrences of the descriptive word in step 354. In step 356, if the descriptive word is found in the requested page, processing proceeds to step 358; if the descriptive word is not found in the requested page, processing proceeds to step 360.

In step 358, a tag pair may be inserted around at least a portion of the requested page to indicate that the portion of the requested page enclosed in the tag pair is not to be garbled. In one embodiment, the tag pair may be inserted around the entire section containing the located descriptive word. In another embodiment, the tag pair may be inserted around the entire section immediately following the section containing the descriptive word. In yet another embodiment, the tag pair may be inserted around the section including the descriptive word and the section immediately following. For example, a header section may include the word "Introduction." If "Introduction" is in the descriptive word table, it may be desirable to not garble the header section, plus the section following (the body of the introduction). Thus, the tag pair may be inserted around both sections. In one embodiment, the descriptive word table may include an action indicator with each descriptive word. The action indicators may be used to indicate the insertion points for the tag pairs in the document for each descriptive word. For example, one action indicator may specify that the tag pair is to be inserted around a section containing the descriptive word, a second action indicator may specify that the tag pair is to be inserted around the section following the section containing the tag pair, and a third action indicator may specify that the tag pair is to be inserted around both sections.

In step 360, if there are more descriptive words in the descriptive word table, processing may return to step 352 to get the next descriptive word. If there are no more descriptive words, the processing of descriptive words may end.

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

Figure 9: Step 324 of Figure 6; Processing of markup tags in a document

Figure 9 is a flow diagram expanding on step 324 of Figure 6, and illustrates the processing of markup tags in a document by a Garbled Preview program according to one embodiment of the invention. In one embodiment, the document server 10 may include a tag and attribute table wherein one or more markup tags and attributes may be stored. An example of one embodiment of a tag and attribute table is illustrated in Figure 12.

As mentioned previously, markup tags may come in pairs, with a first markup tag and a second markup tag enclosing a portion of the document to which the tag action is to be applied. Tag pairs may be nested, with a first tag pair enclosing a second tag pair. Some markup tags may not come in pairs. For example, a single markup tag may be inserted at the beginning of a section and may specify an action be taken on the entire section. The Garbled Preview program may parse the markup tags from the first markup tag appearing in the requested page to the last markup tag appearing in the requested page. Nested tag pairs may be parsed from the outermost tag pair to the innermost tag pair. In one embodiment, if a tag pair is processed that indicates the tag pair's contents are not to be garbled, tag pairs nested in the tag pair are not processed; the entire contents of the outer tag pair, including contents enclosed in nested tag pairs, may be left ungarbled. In another embodiment, if a tag pair is processed that indicates the tag pair's contents are not to be garbled, tag pairs nested in the tag pair are processed; contents enclosed in a nested tag pair may or may not be garbled, depending upon the nested tag pair.

The user may have previously requested a page of the document for viewing as described in Figure 5. Keyword search hits and descriptive words in the requested page may have already been processed as described in Figures 7 and 8. In step 370 of Figure 9, the Garbled Preview program begins processing markup tags and attributes in the requested page. The Garbled Preview program may get the first tag pair in the requested page. The Garbled Preview program may search the tag and attribute table for an occurrence of the markup tag in step 372. In step 374, if an occurrence of the markup tag is found in the tag and attribute table, the contents of the tag pair may be processed using an action indicator that may be stored with the occurrence of the markup tag in the tag and attribute table in step 386. Step 386 is further illustrated in Figure 10.

In step 374, if no occurrence of the markup tag is found in the tag and attribute table, processing may proceed to step 376. In step 376, the Garbled Preview program may examine the markup tag to see if the markup tag contains one or more attributes. If the markup tag does not contain attributes, processing may proceed to step 384 for the processing of the tag pair's contents. Step 384 is further illustrated in Figure 11. Referring again to Figure 9, if the markup tag does contain one or more attributes, the Garbled Preview program begins processing the one or more attributes contained in the markup tag in step 378. The Garbled Preview program may examine the tag and attribute table for an occurrence of a first attribute in step 378. In step 380, if an occurrence of the attribute is found in the tag and attribute table, the contents of the markup tag containing the attribute may be processed using an action indicator that may be stored with the occurrence of the attribute in the tag and attribute table in step 386. Step 386 is further illustrated in Figure 10. In step 380, if no occurrence of the attribute is found in the tag and attribute table, processing may proceed to step 382. In step 382, if the markup tag contains more attributes, processing may return to step 378 to select and process the next attribute. If the markup tag does not contain any more attributes, processing proceeds to step 384 for the processing of the tag pair's contents. Step 384 is further illustrated in Figure 11.

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

After the tag pair and its contents are processed by either step 384 or 386, the Garbled Preview program may examine the requested page to see if there are more tag pairs to be processed. If there are more tag pairs to be processed, the process may return to step 370 to get and process the next tag pair. If there are no more tag pairs to be processed, the Garbling Program may end, and return the requested page to the user as illustrated in steps 314 and 316 of Figure 5.

Figure 10: Step 386 of Figure 9; Processing of a markup tag located in a tag and attribute table

Figure 10 is a flow diagram expanding on step 386 of Figure 9, and illustrates the processing of a markup tag located in a tag and attribute table according to one embodiment of the invention. In one embodiment, the document server 10 may include a tag and attribute table wherein one or more markup tags and attributes may be stored. An example of one embodiment of a tag and attribute table is illustrated in Figure 12.

The user may have previously requested a page of the document for viewing as described in Figure 5. Keyword search hits and descriptive words in the requested page may have already been processed as described in Figures 7 and 8. The Garbled Preview program may have arrived at step 386 of Figure 9 by locating an occurrence of either the markup tag or an attribute contained in the markup tag in the tag and attribute table. An action indicator may be stored with the occurrence of the markup tag or attribute in the tag and attribute table. The garbled preview program may examine the action indicator for the markup tag or attribute in step 400 of Figure 10. The action indicator may indicate to the Garbled Preview program one of a plurality of actions to be performed on the contents of the tag pair. In this embodiment, three actions to be performed on the contents are illustrated.

A first action indicator 402 may instruct the Garbled Preview program to mask the contents of the tag pair. The Garbled Preview program may replace the contents of a tag pair for which a mask contents action indicator is specified with a shaded block in step 404. For example, an HTML tag pair <IMG>...</IMG> may enclose an image to be displayed. If the markup tag <IMG> appears in the tag and attribute table, and the action indicator associated with the markup tag instructs the Garbled Preview program to mask the tag pair's contents, the Garbled Preview program may replace the image with a shaded rectangle on the requested page for viewing by the user.

A second action indicator 406 may instruct the Garbled Preview program to remove the tag pair's contents. The Garbled Preview program may remove the contents of a tag pair for which a remove contents action indicator is specified. For example, an HTML tag pair <link>...</link> may enclose a hyperlink. If the markup tag <link> appears in the tag and attribute able, and the action indicator associated with the markup tag instructs the Garbled Preview program to remove the tag pair's contents, the Garbled Preview program may remove the hyperlink from the requested page for viewing by the user.

A third action indicator 410 may instruct the Garbled Preview program that the tag pair's contents are not to be garbled. The Garbled Preview program may not garble the contents of a tag pair for which a do not garble contents action indicator is specified. For example, an HTML tag pair <hit>...</hit> may enclose a sentence containing a search hit in the requested page. If the markup tag <hit> appears in the tag and attribute table, and the action indicator associated with the markup tag instructs the Garbled Preview program to not garble the tag pair's contents, the Garbled Preview program may leave the tag pair's contents ungarbled on the requested page for viewing by the user. In another example, the tag pair <FONT size=24>...</FONT> may instruct a Web browser to display the tag pair's text contents in font size 24. If the FONT tag attribute (size=24) appears in the tag and

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

attribute table, and the action indicator associated with the attribute instructs the Garbled Preview program to not garble the tag pair's contents, the Garbled Preview program may leave the FONT tag pair's contents ungarbled on the requested page for viewing by the user.

In other embodiments, other action indicators may instruct the Garbled Preview program to perform one or more other actions on the contents of tag pairs associated with the action indicators. In one embodiment, an action indicator may be used to instruct the Garbled Preview program to scramble text content enclosed in the tag pair.

Figure 11: Step 384 of Figure 9; Processing a markup tag that is not located in a tag and attribute table

Figure 11 is a flow diagram expanding on step 384 of Figure 9, and illustrates the processing of a markup tag that is not located in a tag and attribute table according to one embodiment of the invention. In one embodiment, the document server 10 may include a tag and attribute table wherein one or more markup tags and attributes may be stored. An example of one embodiment of a tag and attribute table is illustrated in Figure 12.

The user may have previously requested a page of the document for viewing as described in Figure 5. Keyword search hits and descriptive words in the requested page may have already been processed as described in Figures 7 and 8. The Garbled Preview program may have arrived at step 384 of Figure 9 by not locating an occurrence of either the markup tag or an attribute of the markup tag in the tag and attribute table. In step 420, the Garbled Preview program may examine the tag pair's contents. If the tag pair's contents are not text, the Garbled Preview program may perform no garbling process on the tag pair's contents in step 424.

If the tag pair's contents are text, the Garbled Preview program may scrambled the text in step 422. In one embodiment, scrambling the text may include randomly selecting a replacement character for each character in the text. In one embodiment, random characters may be selected to match the general appearance of the characters. For instance, capital letters may be replaced with capital letters, numbers may be replaced with numbers, lowercase letters with ascenders may be replaced with lowercase letters with ascenders, text in Italics may be replaced with text in Italics, etc. Other embodiments may include other methods of scrambling text content. In general, any text scrambling method that makes the text content unintelligible to the viewer may be used. Preferably, a random method that is not decipherable is used.

Figure 12: A tag and attribute table

Figure 12 is a block diagram illustrating one embodiment of a tag and attribute table. In one embodiment, the markup and attribute table may be stored on the document server 10. The markup and attribute table may be used by a Garbled Preview program as illustrated in Figures 6 through 11. In one embodiment, the table may include two columns, and one row for each occurrence of a markup tag or attribute in the table. Column 140 may include the markup tags and attributes for which actions are to be taken. Column 142 may include the action indicators associated with the markup tags and attributes of column 140. In this example, the table includes nine rows. Some of the rows contain markup tags, and some contain tag attributes. In one embodiment, markup tag names may be enclosed in angle brackets <> to differentiate the markup tags from attributes. Other methods may be used to differentiate markup tags and attributes.

The first row contains the markup tag <IMG> and the action indicator "Mask." The "Mask" indicator may specify that the contents of an <IMG> tag pair are to be replaced with a shaded block. The second row contains the

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

markup tag <hit> and the action indicator "None." The "None" indicator may specify that the contents of a <hit> tag pair are not to be garbled. The third row illustrates that custom markup tags may be created and entered in the tag and attributes table. In this example, <custom tag> is associated with the action indicator "Remove." The "Remove" indicator may specify that the contents of a <custom tag> tag pair are to be removed from the document section for display.

The sixth row contains the markup tag attribute Bold and the action indicator "None." The "None" indicator may specify that the contents of a tag pair with a Bold attribute are not to be garbled. The ninth row contains the tag attribute and value Size=24 and the action indicator "None." This row illustrates that some attributes may be evaluated with an attribute value, while other attributes may be evaluated without attribute values. For example, if the attribute Size appears in the tag and attribute table without an attribute value, then any markup tag with the attribute Size, regardless of the attribute value, may be processes with the action indicator associated with the Size attribute.

Figure 13: A descriptive word table

Figure 13 is a block diagram illustrating one embodiment of a descriptive word table. In one embodiment, the descriptive word table may be stored on the document server 10. The descriptive word table may be used by a Garbled Preview program as illustrated in Figures 6 through 11. In one embodiment, the descriptive word table may include one column 150, wherein each row contains one descriptive word. A descriptive word is a word that, when occurring in the document, causes at least a portion of the document containing the descriptive word to not be garbled. For example, the descriptive word table illustrated in Figure 13 includes the descriptive words "Introduction," "Copyright," and "Overview." The use of the descriptive word table is described in Figure 8.

Figure 14A: An example document with markup tags for displaying content on a Web browser

Figure 14A illustrates an example of a document marked up for displaying text and other content in a computer program capable of reading the markup tags, text and other content, formatting the text and other content using the markup tags, and displaying the formatted text and other content. The marked up document is an example of a document that may be requested for preview by a user of a document browser system. The document may include text and other content enclosed within various markup tag pairs. Some markup tags may be defined as garble tags. As used herein, a garble tag is a markup tag that, when present in a document, signifies that the contents of the garble tag pair are to be garbled, and thus unintelligible, when displayed to a user who does not have viewing access to the portion of the document containing the garble tag pair. An ungarble tag is a markup tag that, when present in a document, signifies that the contents of the ungarble tag are not to be garbled, and thus intelligible, when displayed to the user, regardless of the user's viewing access status for the portion of the document containing the ungarble tag pair. Garbling may include scrambling content, masking content, removing content, or otherwise making the content unintelligible when displayed to the user. Line 100 in Figure 14A includes the HTML tag <h1>. Line 102 includes the HTML tag <h2>. Line 104 includes the HTML tags <p> and . Line 106 includes the image tag <img> to display an image. Line 108 includes the href tag and attribute <a href> to display a hyperlink. In this example, the markup tags <h2> and <p> are garble tags to scramble text within

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

the tags, <img> is a garble tag to mask images within the tag, and <a href> is a garble tag to remove the tag's contents from the displayed page.

In one embodiment, markup tags that do not appear in a tag and attribute table may be garble tags, and markup tags that do appear in the tag and attribute table may be ungarble tags. In another embodiment, markup tags that do appear in a tag and attribute table may be garble tags, and markup tags that do not appear in the tag and attribute table may be ungarble tags. In yet another embodiment, markup tags that do not appear in a tag and attribute table may be garble tags, and markup tags that do appear in the tag and attribute table may be garble or ungarble tags determined by action indicators associated with the markup tags in the table. In still yet another embodiment, the contents of markup tags that do not appear in a tag and attribute table may determine if the contents are to be garbled or not garbled; for instance, all text content may be garbled, and all image, table and other content may not be garbled.

Figure 14B: Displayed content from the document of Figure 14A without garbling

Figure 14B illustrates what the displayed text and other content from the tagged document of Figure 14A may look like without garbling of content. In Figure 14B, line 110 displays the first header described by line 100 of the tagged document, line 112 displays the second header described by line 102 of the tagged document, and line 114 displays the line of text described by line 104 of the tagged document. Image 116 is described by line 106 of the tagged document, and hyperlink 118 is described by line 108 of the tagged document.

Figure 14C: The content from the document of Figure 14A with garbling

Figure 14C illustrates what the displayed text and other content from the tagged document of Figure 14A may look like with garbling of content according to one embodiment of the invention. Figure 14C illustrates how one embodiment of a Garbled Preview program may scramble text within garble tags, mask content within garble tags, and remove content within garble tags before displaying the requested page. In the tagged document of Figure 14A, the markup tags <h2> and <p> are garble tags to scramble text within the tags, <img src> is a garble tag to mask images within the tag, and <a href> is a garble tag to remove the tag's contents from the displayed page. When the Garbled Preview program parses tagged text and other content, the program may garble text, mask content, and remove content within garble tags, and preserves text and other content within ungarble tags.

In Figure 14C, line 120 displays the first header described by line 100 of the tagged document without garbling. Line 122 displays the second header described by line 102 of the tagged document, with the text scrambled. Line 124 displays a line of text described by line 104 of the tagged document, with the text scrambled except for the keyword "scripting," which was tagged with the ungarble tag in line 104 of the tagged document.

In one embodiment, text may be scrambled by generating random, nonsense words from the original text content. In one embodiment, a new random character may be generated for each character, and used to replace the character in the scrambled text. In one embodiment, a new random character may be selected for each occurrence of a particular character. Thus, when a word appears more than once in a document, each occurrence may be replaced with a different random sequence of letters. In one embodiment, punctuation marks and spaces may be left unscrambled. In some embodiments, the random selection of characters and nonsense words may be such that

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

the characters and words are not decipherable. In some embodiments, a character or sequence of characters may be used to replace the characters in the original text. For example, the letter "X", the character "*", or the sequence of letters "XO" may be substituted for all non-punctuation and non-space characters to be scrambled.

Image 126, described by line 106 of the tagged document, has been masked, or replaced with a gray box. In other embodiments, content may be masked with other methods, for example, with other colors of boxes. In one embodiment, the Garbled Preview program may be customizable to mask content in a variety of ways, for example, with boxes of other colors, patterns, pictures, etc. The hyperlink described by line 108 of the tagged document, has been removed (128). The Garbled Preview program removes the tag's contents, thereby preventing the user from accessing the hyperlink.

Any tagged text may be defined for scrambling. Any tagged content may be defined for masking or removal. In one embodiment, any tagged text may be marked for scrambling, masking or removal.

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

What is claimed is:

1. A method for providing an electronic document for evaluation, the method comprising:

performing a garbling operation on at least a portion of the electronic document;

providing the at least a portion of the electronic document to a client system after said performing the garbling operation; and

wherein the at least a portion of the electronic document is operable to be displayed on a display device of the client system.

2. The method of claim 1, further comprising:

receiving a request for the at least a portion of the electronic document from the client system prior to said performing the garbling operation on the at least a portion of the electronic document.

3. The method of any of the preceding claims, wherein the at least a portion of the electronic document includes a garbled portion; and

wherein the garbled portion of the at least a portion of the electronic document is unintelligible to a user of the client system.

4. The method of any of the preceding claims, wherein the at least a portion of the electronic document includes a garbled portion and a non-garbled portion;

wherein the garbled portion of the at least a portion of the electronic document is unintelligible to a user of the client system; and

wherein the non-garbled portion is intelligible to the user of the client system.

5. The method of any of the preceding claims, further comprising:

receiving user input from the client system to select a link in the electronic document, wherein the link references one or more new pages of the electronic document;

performing a garbling operation on the one or more new pages of the electronic document; and

providing the one or more new pages of the electronic document to the client system after said performing the garbling operation on the one or more new pages of the electronic document;

wherein the one or more new pages of the electronic document are operable to be displayed on the display device of the client system.

6. The method of any of the preceding claims, wherein the electronic document comprises one or more markup tags, wherein each of the one or more markup tags is associated with one or more content items in the electronic document.

7. The method of claim 6, wherein a markup tag indicates whether the markup tag's one or more associated content items is to be garbled.

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

8. The method of claim 6 or 7, further comprising:

examining a first markup tag associated with one or more content items in the electronic document; and

garbling the one or more content items associated with the first markup tag in response to the first markup tag indicating the one or more content items are to be garbled;

wherein the one or more content items associated with the first markup tag are not garbled in response to the first markup tag indicating the one or more content items are not to be garbled.

9. The method of any of the preceding claims 6 through 8, further comprising:

searching a table comprising one or more markup tags for a first markup tag associated with one or more content items in the electronic document; and

garbling the one or more content items associated with the first markup tag in response to the first markup tag not being found in the table;

wherein the one or more content items associated with the first markup tag are not garbled in response to the first markup tag being found in the table.

10. The method of claim 9, wherein each of the one or more markup tags in the table is associated with an action indicator, the method further comprising:

garbling the one or more content items associated with the first markup tag in response to the first markup tag being found in the table and an action indicator associated with the first markup tag indicating that the one or more content items associated with the first markup tag are to be garbled;

wherein the one or more content items associated with the first markup tag are not garbled in response to the first markup tag being found in the table and the action indicator associated with the first markup tag indicating that the one or more content items associated with the first markup tag are not to be garbled.

11. The method of claim 9 or 10, further comprising:

garbling the one or more content items associated with the first markup tag in response to the first markup tag not being found in the table and the one or more content items being textual content;

wherein the one or more content items associated with the first markup tag are not garbled in response to the first markup tag not being found in the table and the one or more content items not being textual content.

12. The method of any of the preceding claims 6 through 11, wherein a markup tag comprises one or more attributes, the method further comprising:

examining a first markup tag associated with one or more content items in the electronic document; and

garbling the one or more content items associated with the first markup tag in response to an attribute of the first markup tag indicating the one or more content items are to be garbled;

wherein the one or more content items associated with the first markup tag are not garbled in response to the attribute of the first markup tag indicating the one or more content items are not to be garbled.

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

13. The method any of the preceding claims 6 through 12, wherein a markup tag comprises one or more attributes, wherein a markup tag attribute indicates whether the markup tag's one or more associated content items is to be garbled.

14. The method of claim 13, further comprising:

searching a table comprising one or more markup tag attributes for a first markup tag attribute of a first markup tag associated with one or more content items in the electronic document; and

garbling the one or more content items associated with the first markup tag in response to the first markup tag attribute not being found in the table;

wherein the one or more content items associated with the first markup tag are not garbled in response to the first markup tag attribute being found in the table.

15. The method of claim 14, wherein each of the one or more markup tag attributes in the table is associated with an action indicator, the method further comprising:

garbling the one or more content items associated with the first markup tag in response to the first markup tag attribute being found in the table and an action indicator associated with the first markup tag attribute indicating that the one or more content items associated with the first markup tag are to be garbled;

wherein the one or more content items associated with the first markup tag are not garbled in response to the first markup tag attribute being found in the table and the action indicator associated with the first markup tag attribute indicating that the one or more content items associated with the first markup tag are not to be garbled.

16. The method of claim 14 or 15, further comprising:

garbling the one or more content items associated with the first markup tag in response to the first markup tag attribute not being found in the table and the one or more content items being textual content;

wherein the one or more content items associated with the first markup tag are not garbled in response to the first markup tag attribute not being found in the table and the one or more content items not being textual content.

17. The method of any of the preceding claims 6 through 16, wherein the markup tags comprise at least one of Hypertext Markup Language (HTML) markup tags and Extensible Markup Language (XML) markup tags.

18. The method of any of the preceding claims, wherein said performing the garbling operation includes scrambling one or more textual content items to render the one or more textual content items unintelligible to a user of the client system, wherein a textual content item comprises one or more characters, and wherein scrambling the textual content item comprises replacing each of the one or more characters with a different character.

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

19. The method of claim 18, wherein said replacing each of the one or more characters with a different character comprises randomly selecting a different character from a plurality of characters.

20. The method of claim 18 or 19, wherein said replacing each of the one or more characters with a different character comprises replacing an original character with a replacement character randomly selected from a set of replacement characters with one or more similar font characteristics to the original character.

21. The method of claim 20, wherein the original character and the replacement character comprise one or more of ascenders and descenders.

22. The method of claim 20 or 21, wherein the original character and the replacement character are at least one of uppercase, boldface, Italics, and underlined.

23. The method of any of the preceding claims, wherein said performing the garbling operation includes masking one or more content items to render the one or more content items unintelligible to a user of the client system, wherein masking a content item comprises replacing the content item with a shaded block.

24. The method of claim 23, wherein the shaded block is of substantially similar shape and size as the original content item.

25. The method of any of the preceding claims, wherein said performing the garbling operation includes removing one or more content items such that the one or more content items are not displayed on the display device of the client system.

26. The method of any of the preceding claims, wherein the garbling operation on the at least a portion of the electronic document is not performed in response to the at least a portion of the electronic document being available for full evaluation by a user of the client system.

27. The method of any of the preceding claims, wherein the garbling operation on the at least a portion of the electronic document is not performed in response to the at least a portion of the electronic document including at least one occurrence of one or more descriptive words.

28. The method of any of the preceding claims, further comprising:

reading a first descriptive word from a table comprising one or more descriptive words;

searching the at least a portion of the electronic document for an occurrence of the first descriptive word; and

locating an occurrence of the first descriptive word in the at least a portion of the electronic document;

wherein at least a portion of the at least a portion of the electronic document is not garbled in response to locating the occurrence of the first descriptive word in the at least a portion of the electronic document.

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

29. The method of any of the preceding claims 2 through 28, wherein said receiving the request for at least a portion of the electronic document comprises:

receiving user input from the client system requesting a search operation to locate one or more keywords in the electronic document; and

performing the search operation, wherein the search operation locates one or more instances of the one or more keywords in the electronic document;

wherein, after said performing the garbling operation, a portion of the electronic document proximate to the one or more located keywords is not garbled, and wherein other portions of the electronic document are garbled.

30. The method of claim 29, wherein the electronic document comprises one or more paragraphs comprising one or more sentences, wherein a first sentence comprising a first instance of a located keyword within a paragraph of the electronic document is not garbled, and wherein other sentences in the paragraph not comprising located keywords are garbled.

31. The method of claim 30, wherein the paragraph comprises a second sentence comprising a second instance of the located keyword, wherein a portion of the second sentence preceding the second instance of the located keyword is not garbled, wherein a portion of the second sentence following the second instance of the located keyword is not garbled, and wherein the remainder of the second sentence is garbled.

32. The method of claim 31, wherein the preceding portion of the second sentence comprises one word, and wherein the following portion of the second sentence comprises one word.

33. The method of any of the preceding claims 2 through 32, wherein said receiving the request for the at least a portion of the electronic document comprises receiving user input from the client system selecting the electronic document for evaluation from a plurality of electronic documents displayed on the display device of the client system.

34. The method of any of the preceding claims 2 through 33, wherein said receiving the request for at least a portion of the electronic document comprises:

receiving user input from the client system requesting a search operation to locate one or more keywords in a plurality of electronic documents, wherein the plurality of electronic documents includes the electronic document; and

performing the search operation, wherein the search operation locates one or more instances of the one or more keywords in one or more of the plurality of electronic documents, wherein the one or more of the plurality of electronic documents includes the electronic document;

wherein, after said performing the garbling operation, a portion of the electronic document proximate to the one or more located keywords is not garbled, and wherein other portions of the electronic document are garbled.

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

35. The method of any of the preceding claims, wherein the at least a portion of the electronic document is one of a Web page and a Web frame.

36. The method of any of the preceding claims,

wherein the at least a portion of the electronic document includes a garbled portion after said performing the garbling operation, wherein the garbled portion of the at least a portion of the electronic document is unintelligible to a user of the client system; and

wherein a layout of the at least a portion of the electronic document after said performing the garbling operation is substantially the same as a layout of the at least a portion of the electronic document prior to said performing the garbling operation.

37. The method of claim 36, wherein the layout of the at least a portion of the document comprises the size and location of the content of the at least a portion of the document.

38. The method of claim 37, wherein the content comprises headings, paragraphs, sentences, words, graphics, tables, images, hyperlinks, and white spaces.

39. The method of any of the preceding claims, wherein the at least a portion of the electronic document is operable to be evaluated by a user of the client system; the method further comprising:

providing an electronic document purchasing interface to the display device of the client system, wherein the electronic document purchasing interface is operable by the user to purchase the electronic document in response to user input.

40. The method of any of the preceding claims 2 through 39, wherein said performing the garbling operation on the at least a portion of the electronic document comprises dynamically performing the garbling operation on the at least a portion of the electronic document after said receiving the request for at least a portion of the electronic document from the client system and prior to said providing the at least a portion of the electronic document to the client system.

41. A system for providing an electronic document for evaluation, which performs a method according to any of the preceding claims 1-40.

42. The system of claim 41, wherein the system comprises:

a server computer system comprising:

a processor;

a memory medium coupled to the processor, wherein the memory medium stores the electronic document and a garbling program; and

a network port which is operable to receive a request for at least a portion of the electronic document;

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

wherein the garbling program is executable by the processor for performing a garbling operation on the at least a portion of the electronic document.

43. The system of claim 42, further comprising:

a client system; and

a display device coupled to the client system;

wherein the memory medium further stores a document server program executable by the processor for providing the at least a portion of the electronic document to the client system after said performing the garbling operation; and

wherein the at least a portion of the electronic document is operable to be displayed on the display device coupled to the client system.

44. A carrier medium comprising program instructions, wherein the program instructions are executable to perform a method according to any of the preceding claims 1-40.

45. A method for evaluating an electronic document, the method comprising:

submitting a request for at least a portion of the electronic document;

receiving the at least a portion of the electronic document, wherein the at least a portion of the electronic document includes a garbled portion and a non-garbled portion; and

displaying the at least a portion of the electronic document, wherein the garbled portion is unintelligible to a user, and wherein the non-garbled portion is intelligible to the user.

46. The method of claim 45, further comprising:

receiving user input to select a link in the electronic document, wherein the link references one or more new pages of the electronic document;

submitting a request for the one or more new pages of the electronic document in response to receiving the user input to select a link;

receiving the one or more new pages of the electronic document, wherein the one or more new pages of the electronic document include a garbled portion and a non-garbled portion; and

displaying the one or more new pages of the electronic document, wherein the garbled portion is unintelligible to a user, and wherein the non-garbled portion is intelligible to the user.

47. The method of any of the preceding claims, further comprising:

selecting the electronic document for evaluation from a plurality of electronic documents prior to submitting the request for the at least a portion of the electronic document.

48. The method of any of the preceding claims, further comprising:

submitting a request for a search operation to locate one or more keywords in the electronic document;

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

receiving at least a portion of the electronic document, wherein the at least a portion of the electronic document includes one or more keywords located in the requested search operation; and

displaying the at least a portion of the electronic document, wherein a portion of the electronic document proximate to the one or more located keywords is not garbled, and wherein other portions of the electronic document are garbled.

49. The method of any of the preceding claims, wherein a layout of the at least a portion of the electronic document, including said garbled and non-garbled portions, is substantially the same as a layout of the at least a portion of the electronic document prior to being garbled.

50. The method of any of the preceding claims, wherein the at least a portion of the electronic document includes scrambled textual content items which are unintelligible to a user of the client system.

51. The method of claim 50, wherein each of the scrambled textual content items comprises one or more characters which replaced original characters in a nongarbled version of the at least a portion of the electronic document.

52. The method of claim 51, wherein each of the one or more characters in the scrambled textual content items comprises similar font characteristics to the replaced original characters in the nongarbled version of the at least a portion of the electronic document.

53. The method of any of the preceding claims, wherein the at least a portion of the electronic document includes one or more masked content items.

54. The method of any of the preceding claims, wherein the at least a portion of the electronic document is one of a Web page and a Web frame.

55. A client system for evaluating an electronic document, wherein the client system is operated by a user, and wherein the client system is operable to perform a method according to any of the preceding claims 45-54.

56. The client system of claim 55, comprising:

a processor;

a memory medium coupled to the processor, wherein the memory medium stores document browser software; and

a display device coupled to the processor and the memory medium;

wherein the document browser software is executable by the processor for submitting a request for at least a portion of the electronic document;

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

wherein the document browser software is further executable by the processor for receiving the at least a portion of the electronic document, wherein the at least a portion of the electronic document includes a garbled portion and a non-garbled portion;

wherein the memory medium is further operable to store the at least a portion of the electronic document upon receipt of the at least a portion of the electronic document by the document browser software; and

wherein the document browser software is further is further executable by the processor for displaying the at least a portion of the electronic document on the display device, wherein the garbled portion is unintelligible to the user, and wherein the non-garbled portion is intelligible to the user.

57. A carrier medium comprising program instructions, wherein the program instructions are executable to perform a method according to any of the preceding claims 45-54.

58. A carrier medium for carrying signals in a network system, wherein the carrier medium is operable to carry at least a portion of a garbled electronic document, wherein the garbled electronic document comprises:

a garbled portion comprising one or more garbled content items, wherein the garbled portion of the at least a portion of the electronic document is unintelligible when displayed to a user; and

a non-garbled portion comprising one or more non-garbled content items, wherein the non-garbled portion is intelligible when displayed to the user.

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

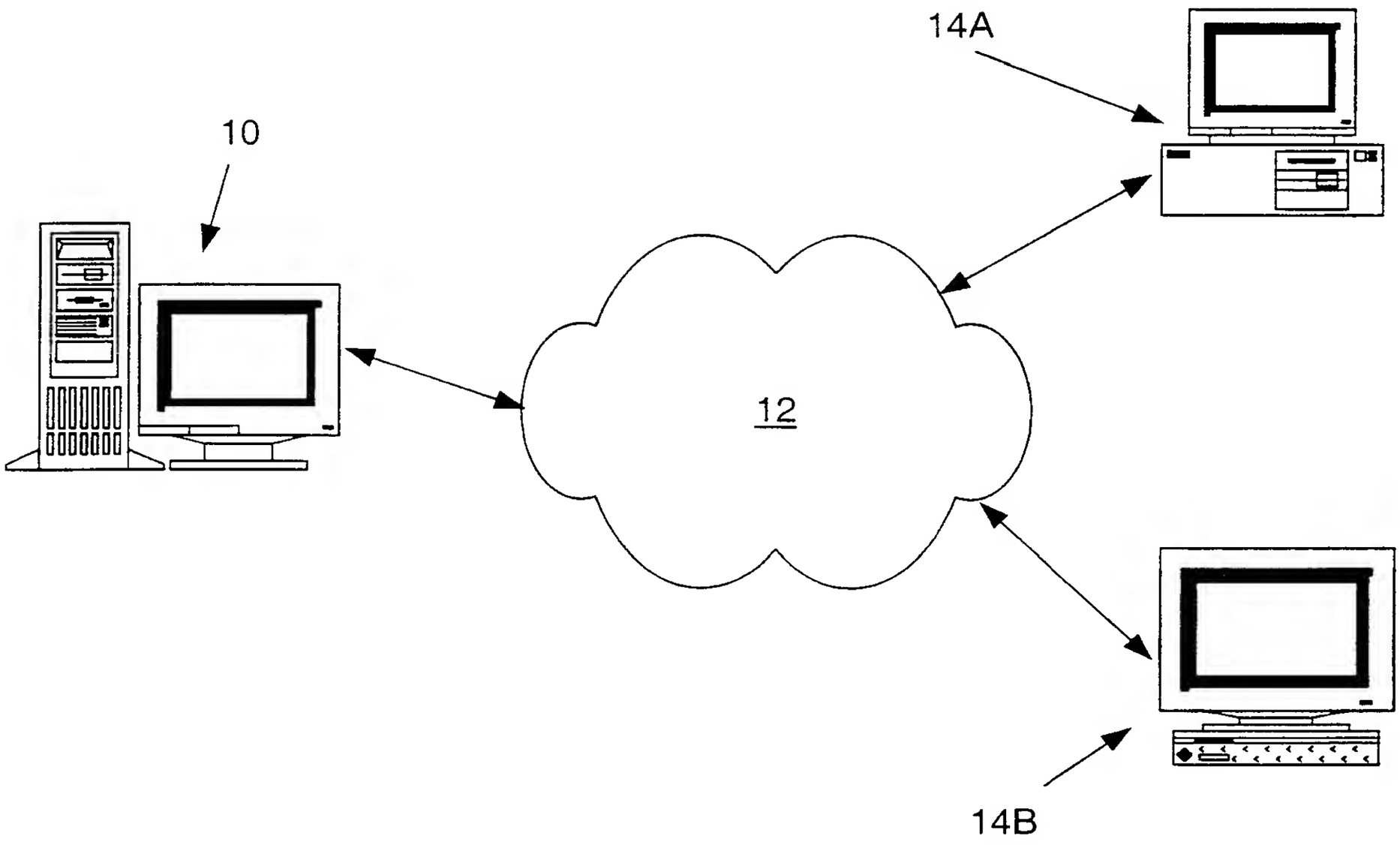


FIG. 1

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

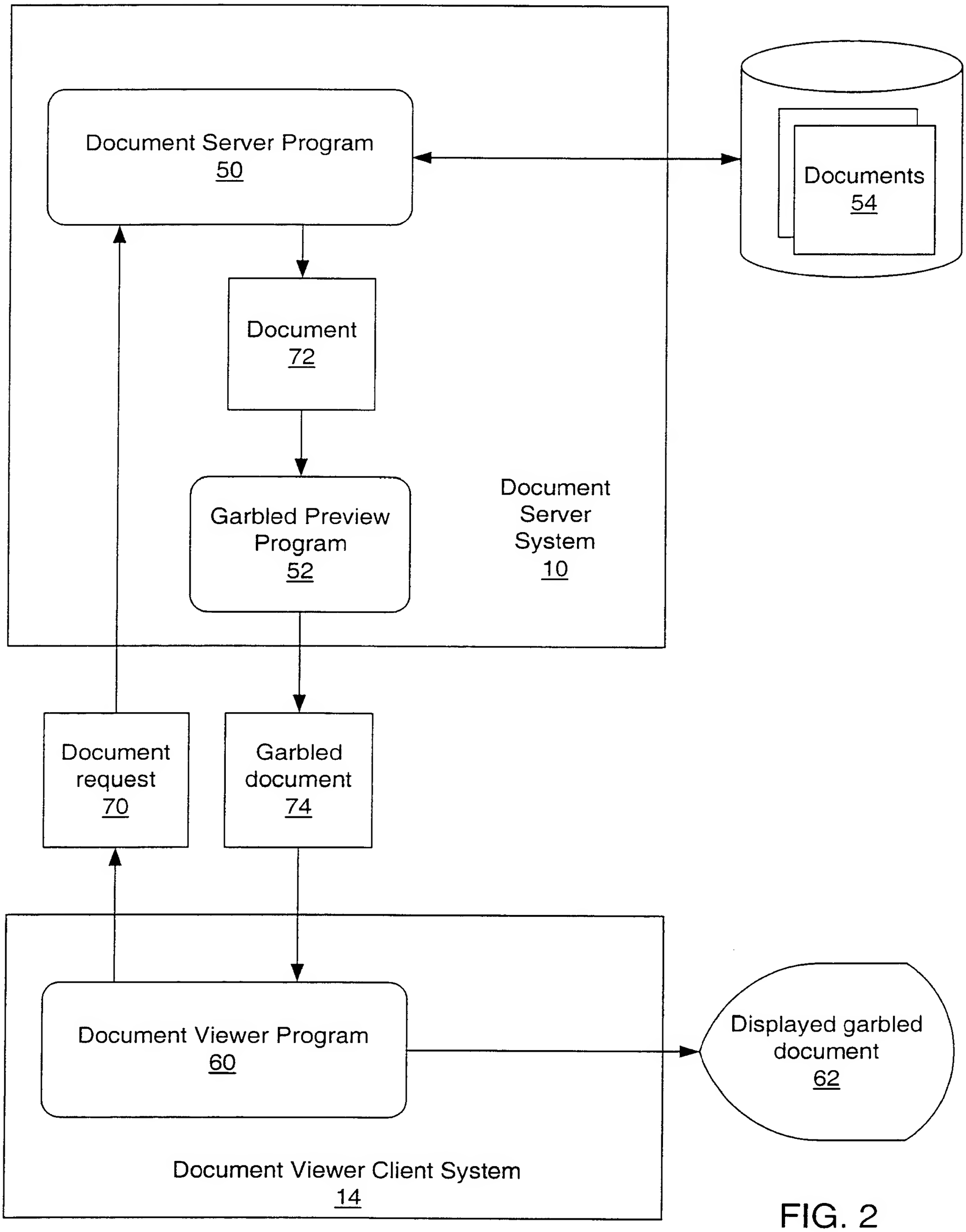


FIG. 2

Patent provided by Sughrue Mion, PLLC http://www.sughrue.com

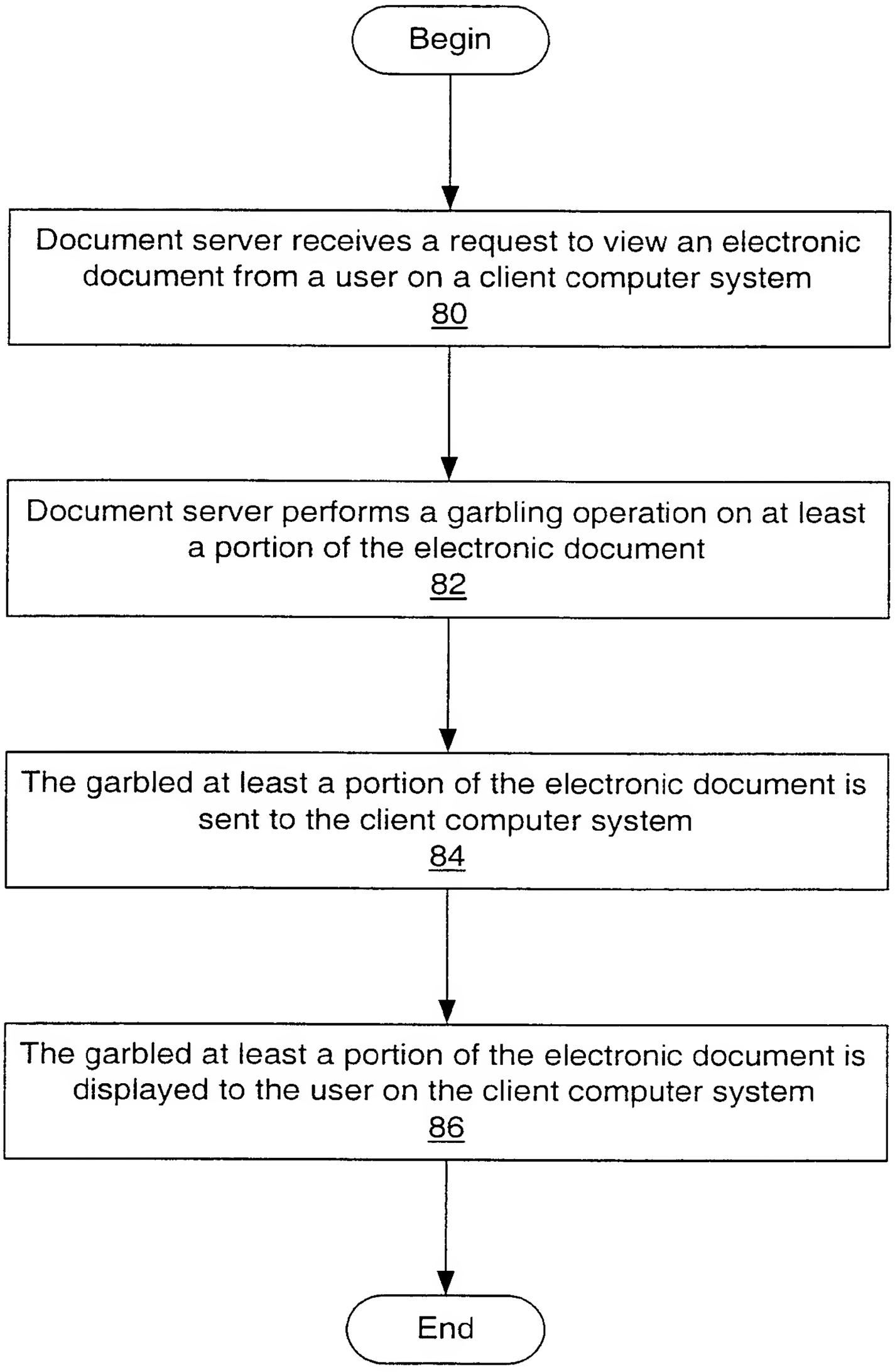


FIG. 3

Patent provided by Sughrue Mion, PLLC (http://www.sughrue.com

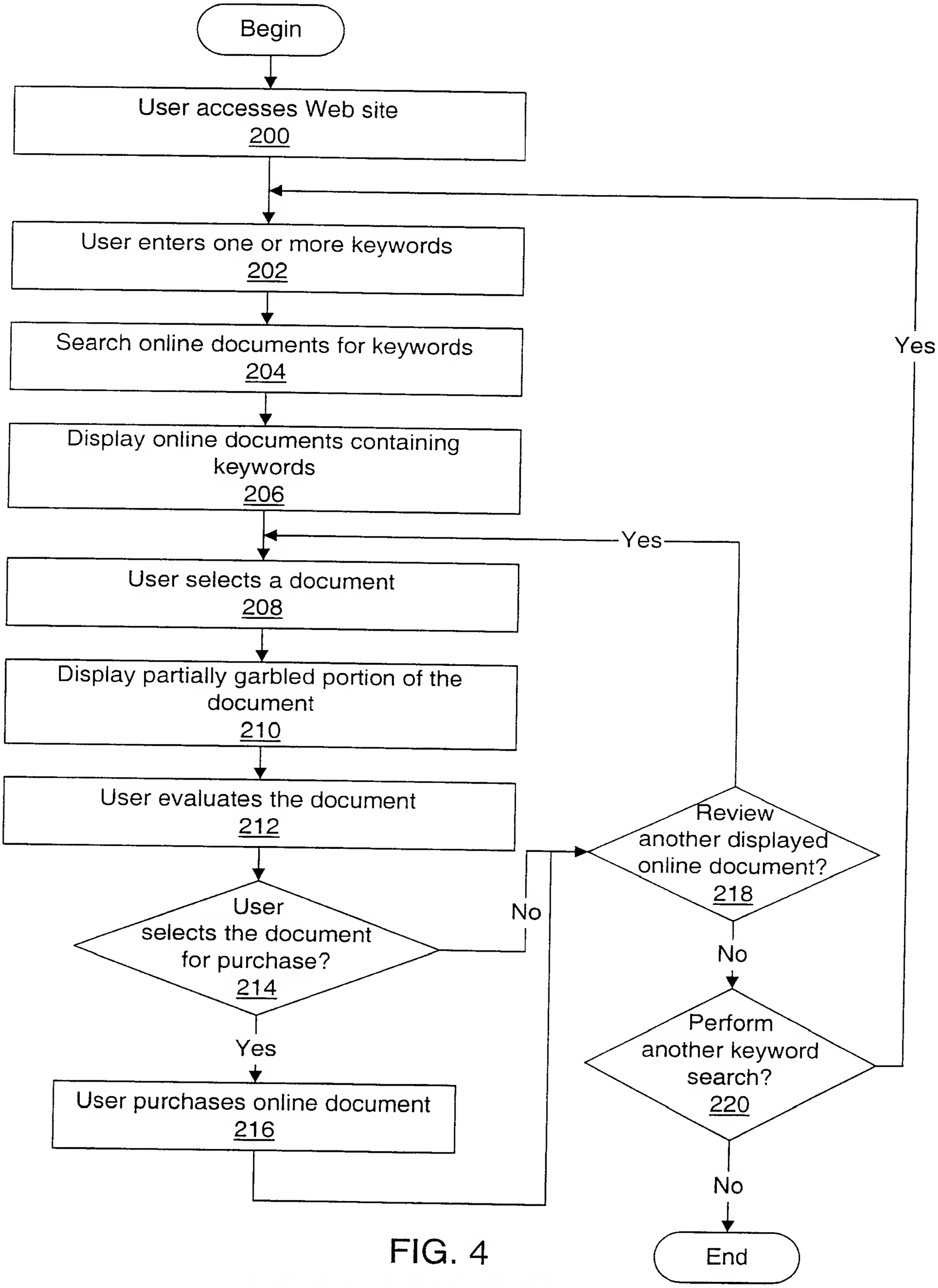


FIG. 4

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

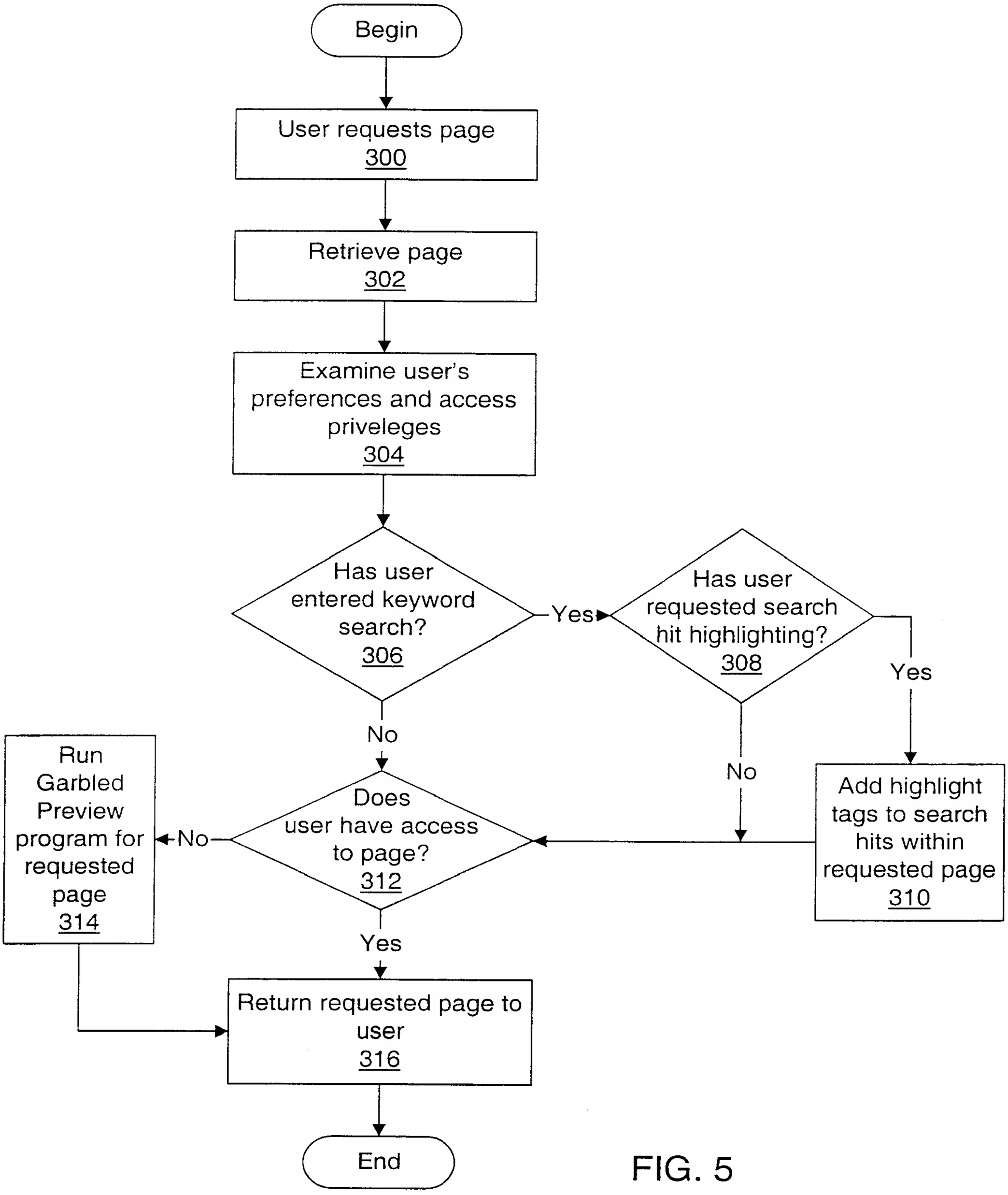


FIG. 5

Patent provided by Sughrue Mion, PLLC (http://www.sughrue.com

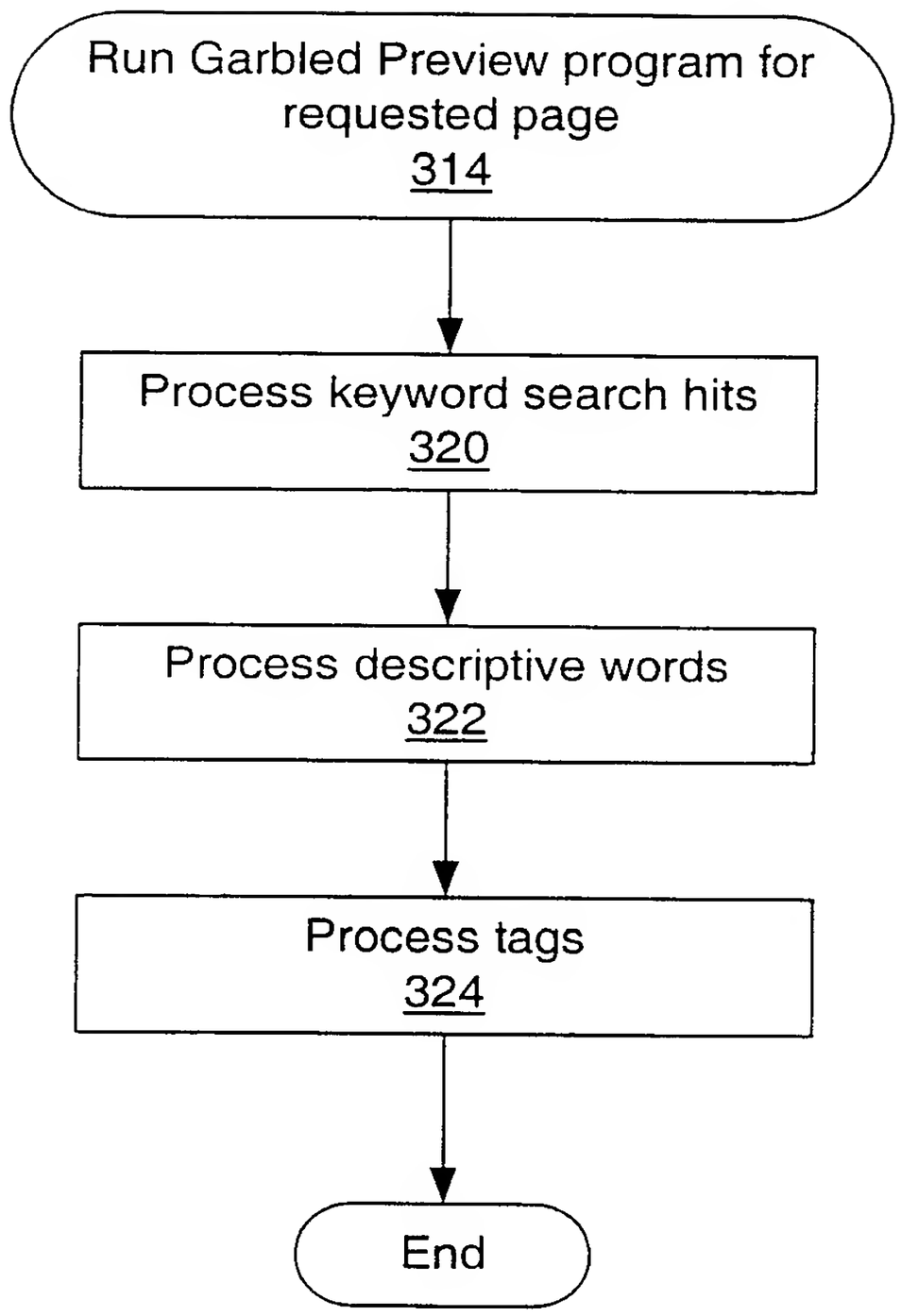


FIG. 6

Patent provided by Sughrue Mion, PLLC http://www.sughrue.com

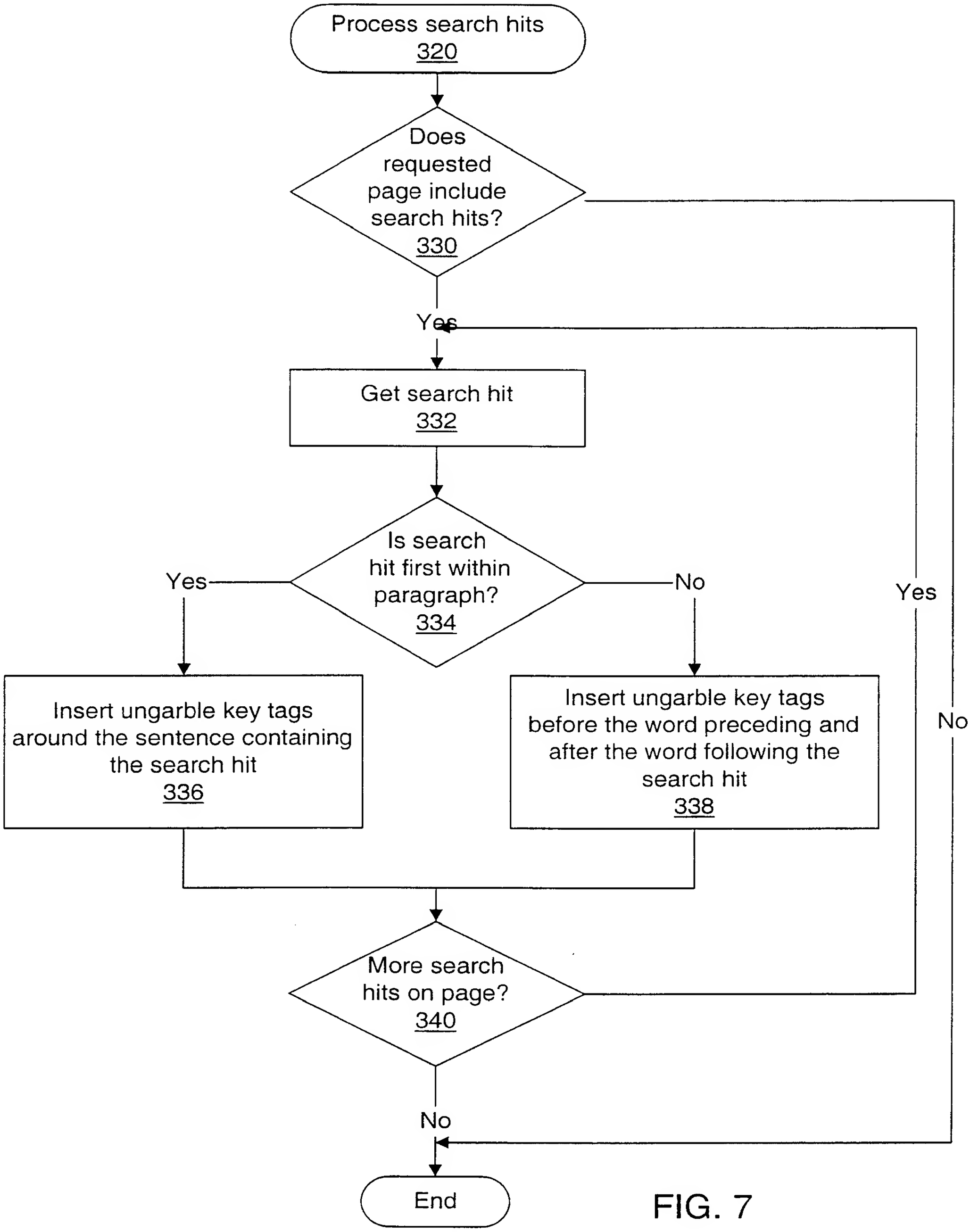


FIG. 7

Patent Document Processed by Sughrue Mion, PLLC http://www.sughrue.com

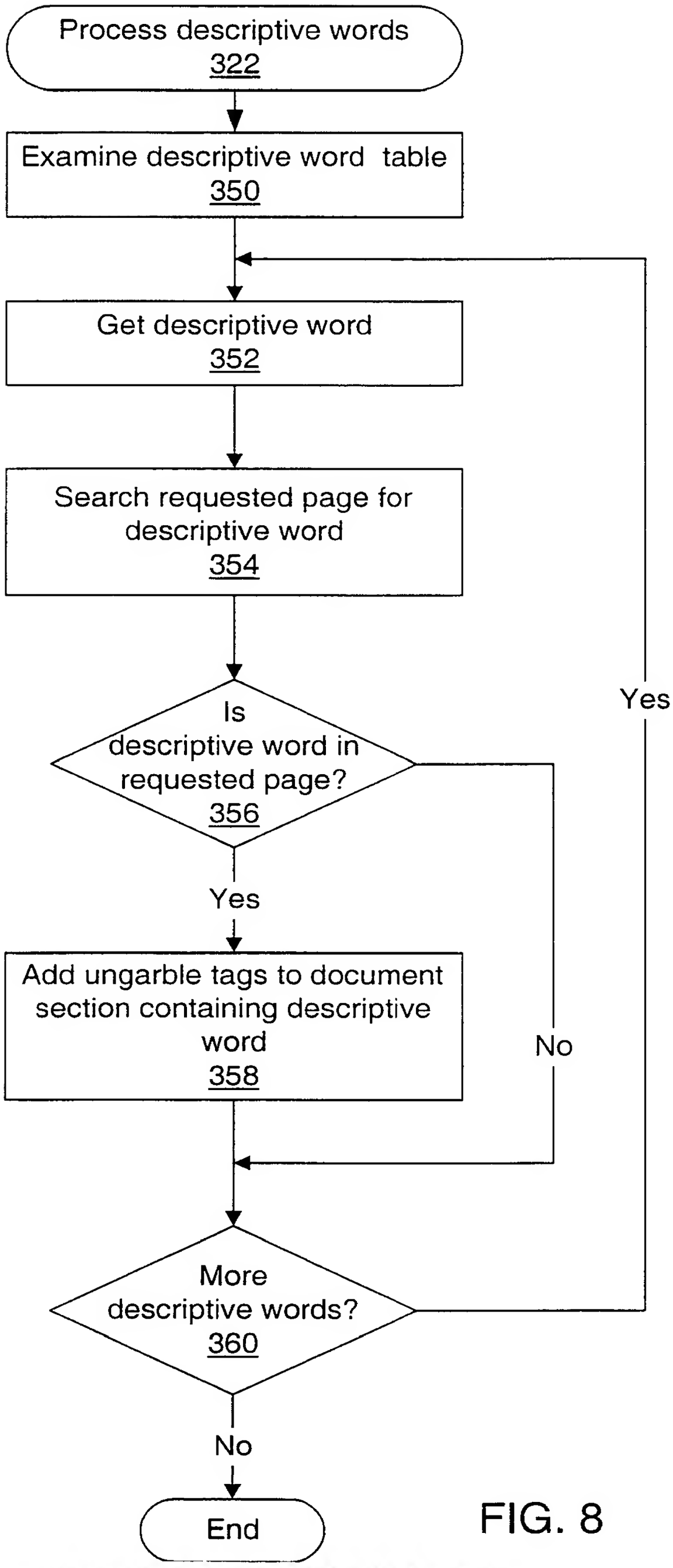


FIG. 8

Patent Document Published by Clarivate Analytics: PCT Publication http://www.clarivate.com

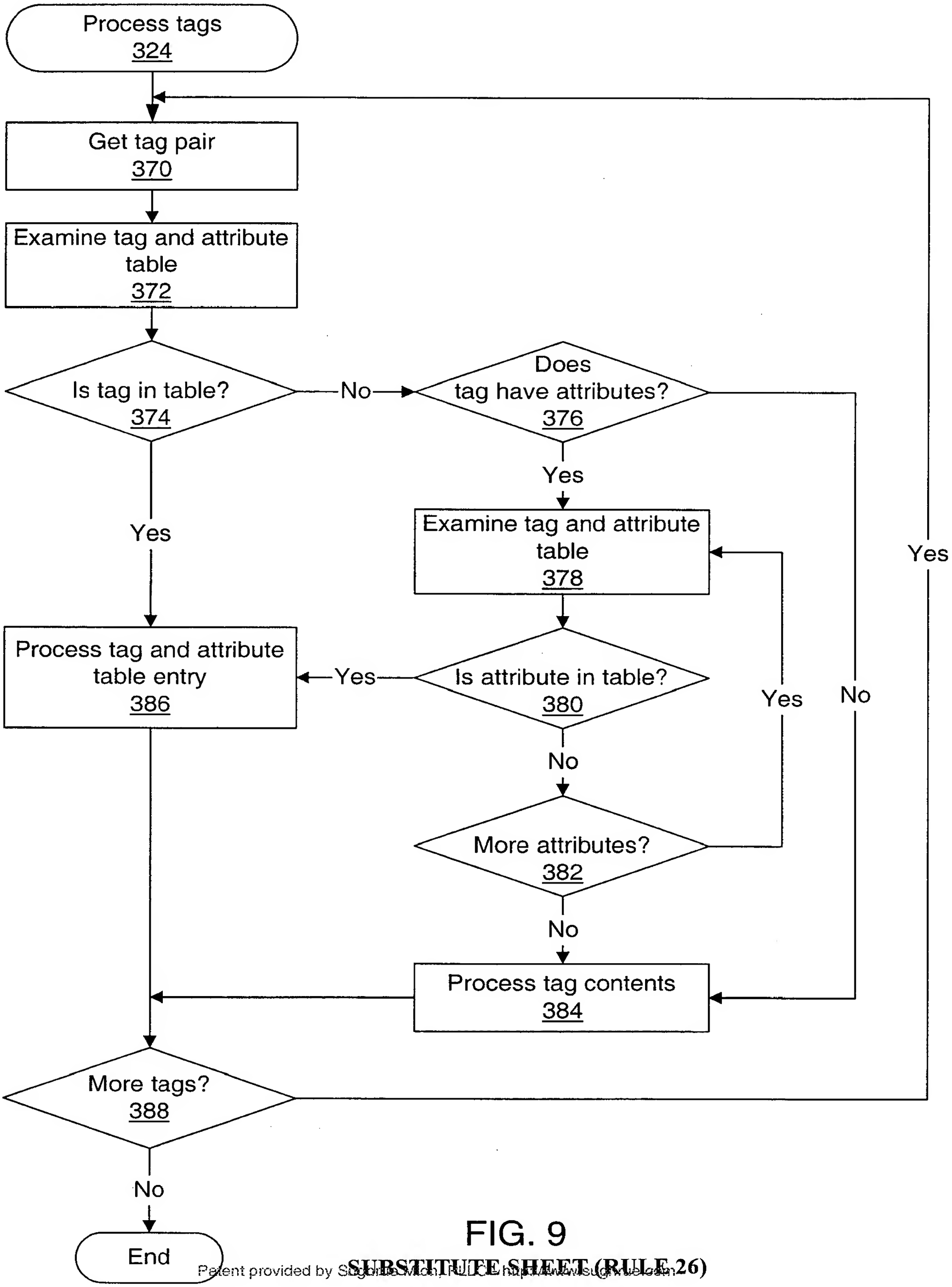


FIG. 9

Patent provided by Sughrue Mion, PLLC - http://www.sughrue.com

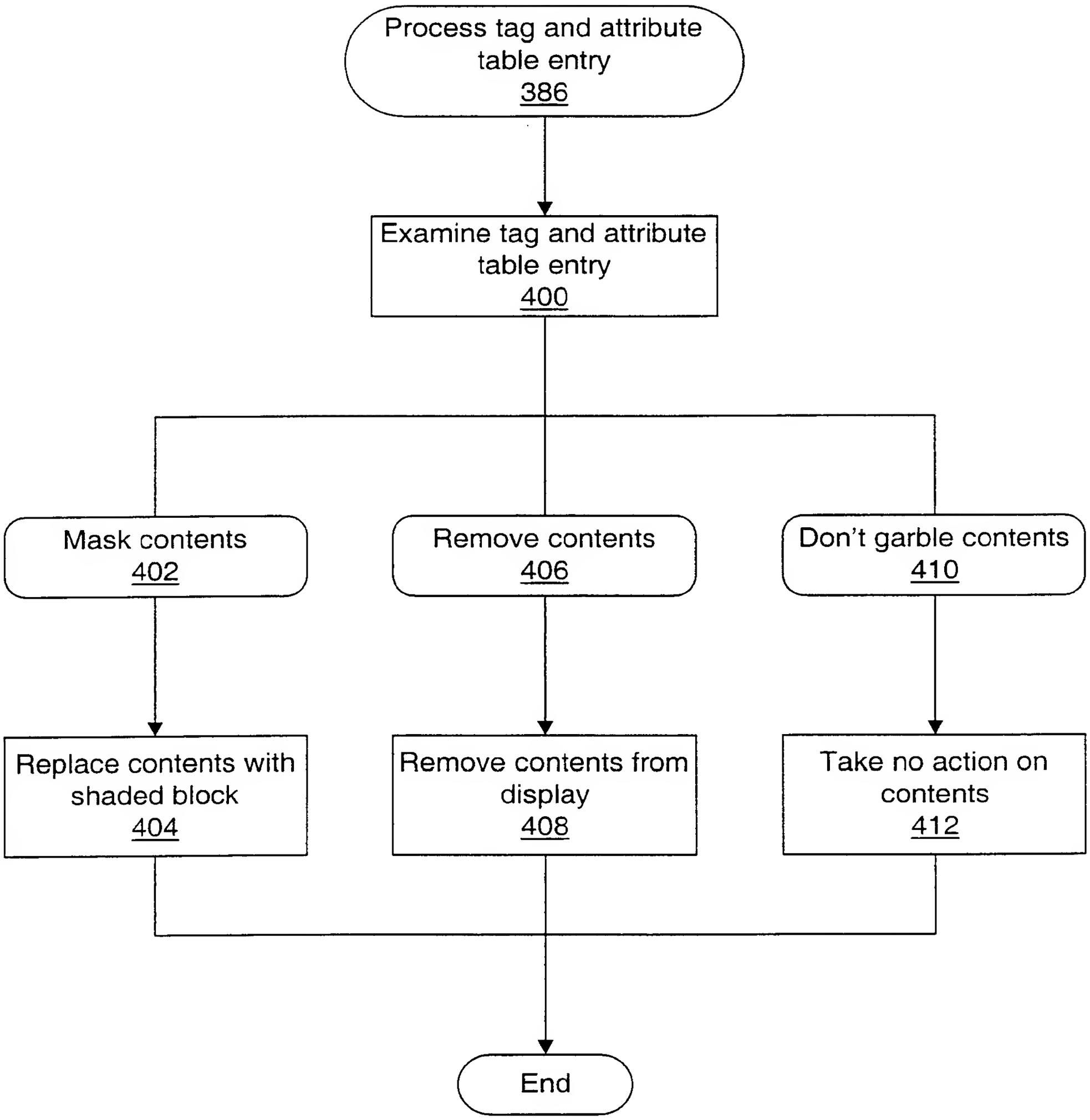


FIG. 10

Patent provided by Sughrue Mion, PLLC (http://www.sughrue.com

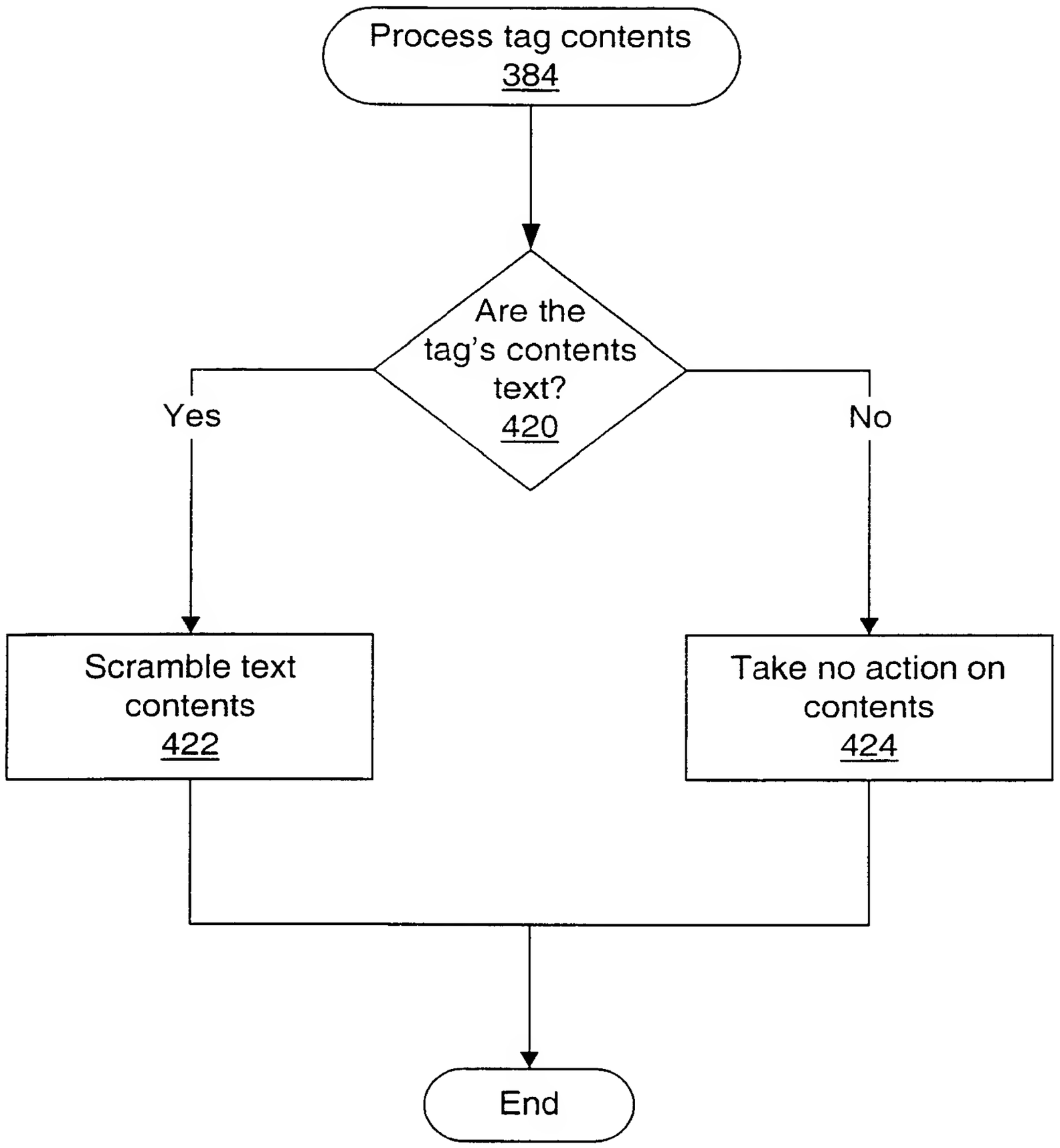


FIG. 11

Patent Published by Slaughter and May, EC - http://www.slaughrue.com

140 142

<IMG>	Mask
<hit>	None
<custom tag>	Remove
<FIG>	Mask
<highlight>	None
Bold	None
<link>	Remove
Color	None
Size=24	None

FIG. 12

150

Introduction
Copyright
Overview

FIG. 13

Patent provided by Sughrue Mion, PLLC - http://www.Sughrue.com

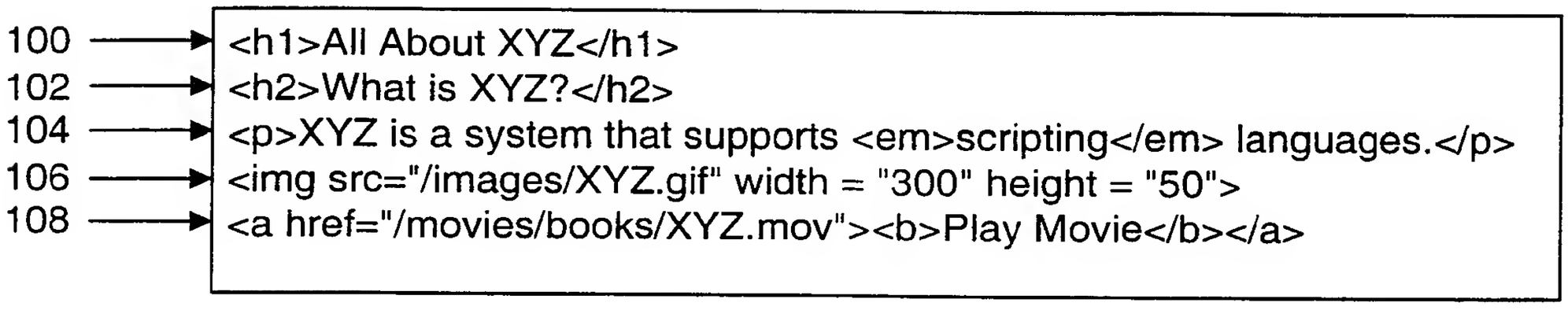


FIG. 14A

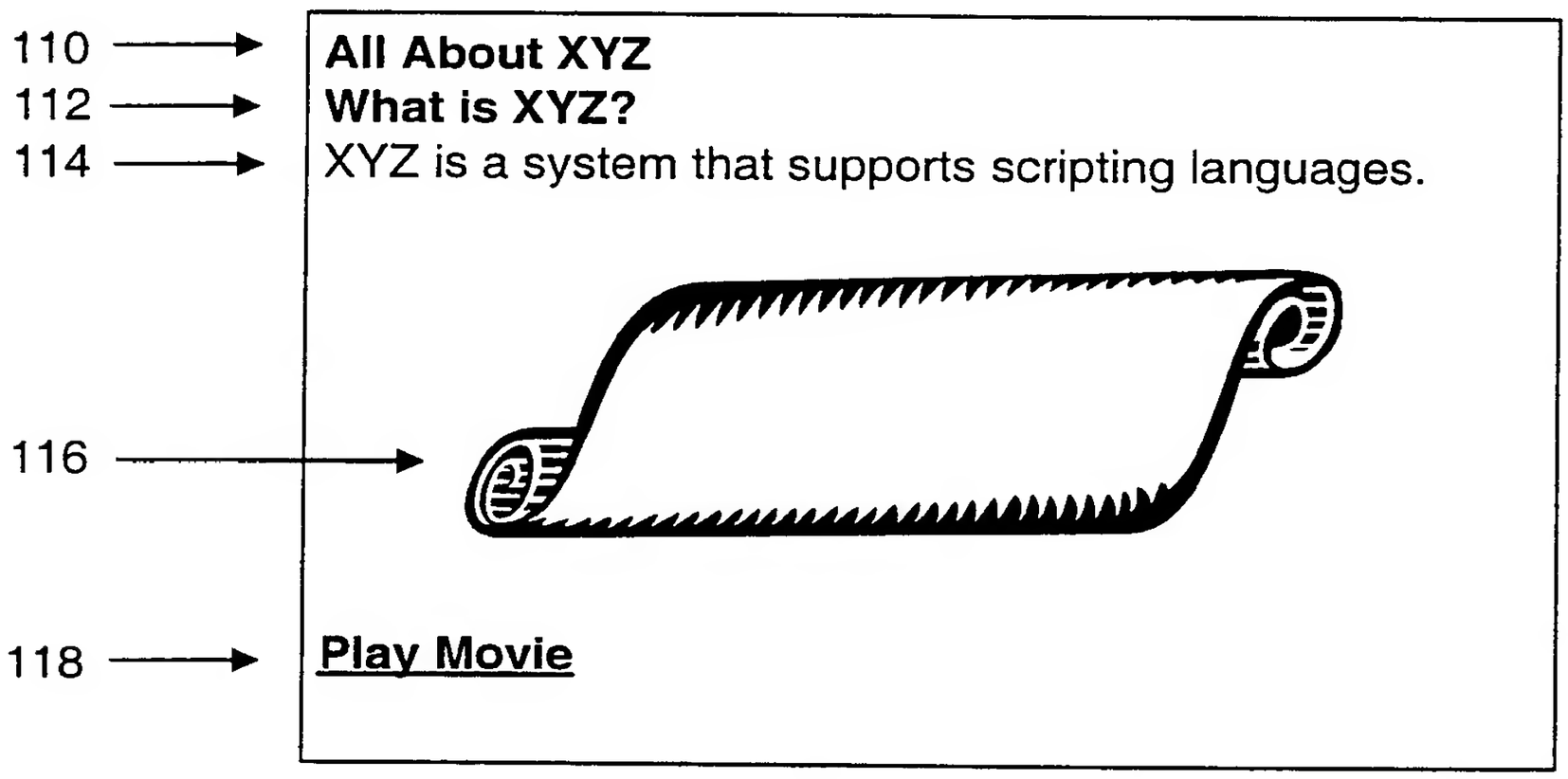


FIG. 14B

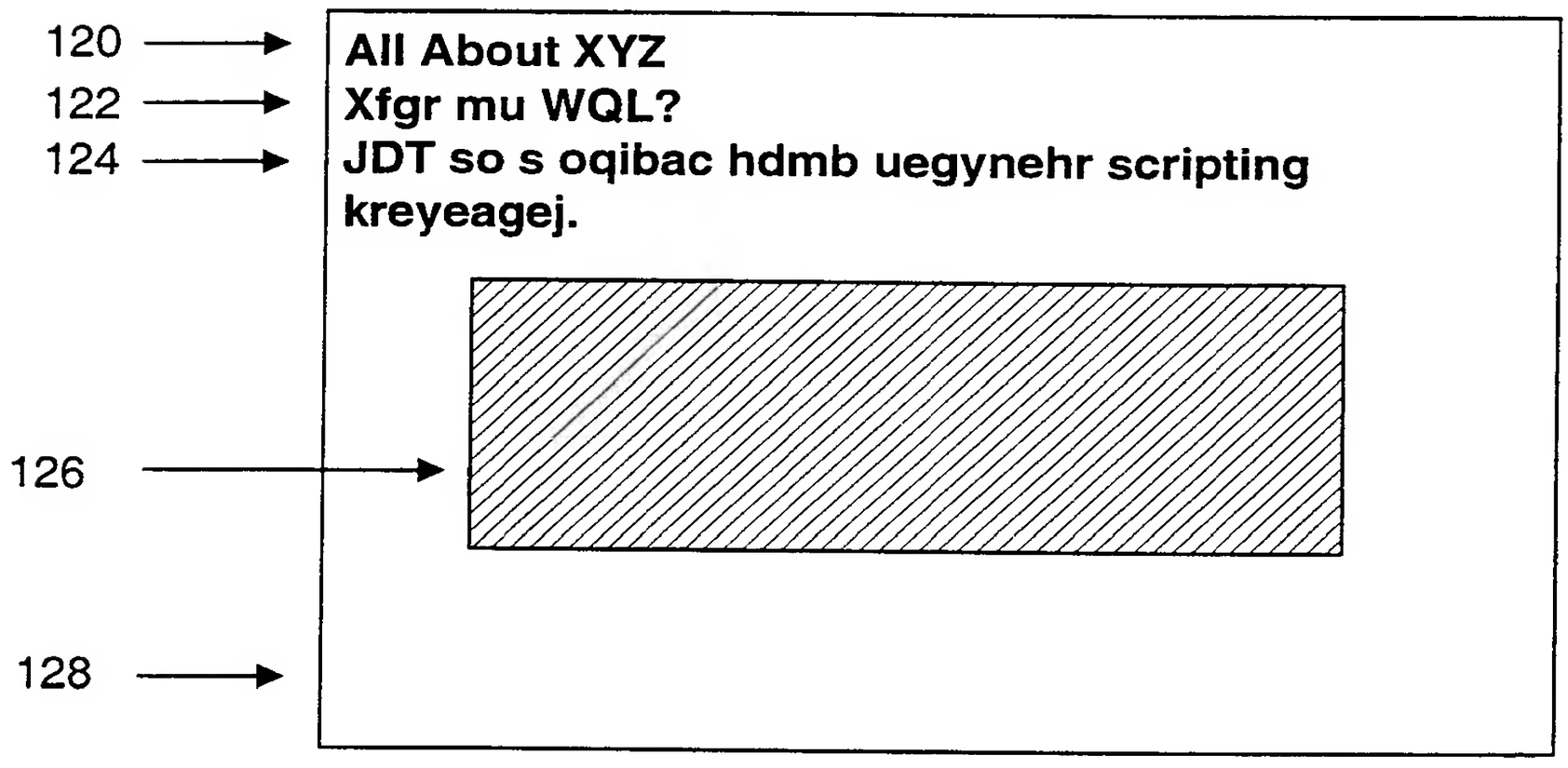


FIG. 14C

Patent Provided by Sughrue Mion, PLLC - http://www.sughrue.com